Deanship of Graduate Studies

Al- Quds University

Assessment of Interprofessional Collaboration among Healthcare Providers in the Provision of Health Services at Governmental Hospitals- Gaza Governorates

Iyad Ibrahim Shaqura

MPH Thesis

Jerusalem-Palestine

1437-2016

Assessment of Interprofessional Collaboration among Healthcare Providers in the Provision of Health Services at Governmental Hospitals- Gaza Governorates

Submitted by:

Iyad Ibrahim Shaqura

BSc. of Pharmacy- Al-Azhar University- Gaza, Palestine

Supervisor:

Dr. Radwan M. Baroud

PhD, Professor- School of Public Health

A Thesis Submitted in Partial Fulfillment of Requirements for the Degree of Master of Public Health/Health Management School of Public Health- Al-Quds University

1437-2016

Deanship of Graduate Studies

Al- Quds University

Thesis Approval

Assessment of Interprofessional Collaboration among Healthcare Providers in the Provision of Health Services at Governmental Hospitals- Gaza Governorates

Prepared by: Iyad Ibrahim Shaqura

Registration No.: 21310100

Supervised by: Dr. Radwan Baroud

Master thesis was submitted and accepted, Date:……/……/…….. .

The names and signatures of examining committee members were as follow:

1. **Head of committee: Dr. Radwan Baroud, signature:……**
2. **Internal Examiner: Dr. Yehia Abed, signature:……**
3. **External Examiner: Dr. Mohammed Abu Hashaish, signature:……**

Jerusalem-Palestine

1437-2016

Dedication

To The sake of Allah, my Creator and my Master;

To my great teacher and messenger, Mohammed (May Allah bless and grant him), who taught us the purpose of life;

To my homeland Palestine, the warmest womb;

To the great martyrs and prisoners, the symbol of sacrifice;

To the Al-Quds University; my second magnificent home;

To my great parents, who never stop giving of themselves in countless ways;

To my dearest wife, who leads me through the valley of darkness with light of hope and support,

To my beloved brothers and sisters, who I love;

To my lovely kids: Ibrahim, Mohammed, and Sara whom I can't force myself to stop loving;

To the spirits of my grandfathers and grandmothers;

To the spirit of my dearest brother, martyr Ibrahim Al-Hallaq;

To my friends who encourage and support me, especially Mr. Mahmoud Ismail;

To all the people in my life who touch my heart

I dedicate this research...

Yours, Iyad

ACKNOWLEDGEMENTS

The researcher finds words too humble to express the deep and sincere appreciation and gratitude to be extended to **Dr. Radwan Baroud**, for everything he did and is doing; particularly for his friendly tutorship, patience, nurturing, transferable experience and unforgettable endless support. Deep thanks are extended to Dr. Bassam Abu Hamad, who has been a constant source of encouragement and enthusiasm not only during the thesis project but also during the years of my Master program. Here, I have to remember thanking Dr. Yehia Abed and wish him all wellbeing and also Dr. Khitam Abu Hamad for their guidance and support during various courses in the program. Appreciation is extended also to the administrative staff at the School of Public Health for their friendly cooperation and facilitations.

Respectful appreciation is extended to my close relative Mr. Abel Rahim Shaqqoura for his effective advices and kind support. Deep gratitude also should go to my brother Dr. Emad Shaqqoura and his wife Dr. Doa'a Abu Shammalah for their academic assistance with software programs that were effective enablers of research work.

Sincere thanks to my colleagues namely; Suha Al-Najjar, Maha Elbanna, Ahmad AlKhodary, Mohammed Jaber and Fadi Iskafi for their help and encouragement which contribute in becoming this thesis project a reality. Here, I cannot forget to send special thanks mixed with high appreciation to the head of my department at work Dr. Riham Rabah, Eng. Mohammed Qudeih and all of work colleagues for their significantly continuous assistance. Also, I would thank all participants from all hospitals who spent their times and exerted efforts during the level of data collection.

With respect,

Iyad Ibrahim Shaqura

Declaration

I certify that this thesis submitted for the degree of master is the result of my own research, except where otherwise acknowledged, and that this thesis or any of its parts has not been submitted for higher degree to any other university or institution.

Signed:

Iyad I. H. Shaqura

Date: --------/---------/---------

Abstract

Universally, there is a growing interest in studying interprofessional collaborative care; whereas, most studies have shown that interprofessional collaborative care has positive outcomes on patient, provider and health system levels. Interprofessional collaboration becomes one of the important priorities for World Health Organization as well as scientific research in Palestine. This study ascertains the assessment of health providers collaboration in providing services at governmental hospitals in Gaza governorates.

A mixed-methods approach was used, in which data has been triangulated. In total, 340 randomly selected healthcare providers from six hospitals who were eligible and consented to participate in the quantitative part of the study with 95.7% response rate. In addition, seven interviews and three focus group discussions were conducted with purposively selected 30 participants. Quantitative data were collected first through self-administered questionnaire and preliminary findings derived from the analysis of the questionnaires had directed the qualitative data collection. The researcher used the Collaborative Assessment Practice Tool. The overall reliability was (Cronbach's Alpha 0.815). The statistical Package for Social Sciences software was used for the quantitative data entry and analysis while open coding thematic technique was used to analyze the qualitative data in addition to cross-hospital analysis.

Findings reveal that 59.12% of participants were male and 79.7% were married at the time of data collection. Nearly half (52.1%) of respondents were nurses, 30.6% physicians, 5.6% lab. Technicians, 4.7% pharmacists, 3.8% radiology technicians and 3.2% physiotherapists 58.2% were bearing bachelors certificate. 40.3% were working at Al-Shifaa medical complex, 22.4% at EGH, 13.8% at Al-Aqsa, 10.9% at Kamal Adwan, 7% at Al-Rantisy and 5.6% at Al-Hilal hospital. 84.75% of participants were working in open departments. Around 84% were experience for 1-15 years. Nearly two thirds (64.1%) were regular employees without high administrative positions.

Study participants proposed variations in their responses in relation to the 56 items of the eight domains of interprofessional collaboration. The domain of general relationships elicited the highest mean among other domains (3.943) whereas the mean of community linkages and coordination of care was the least (3.181) as this was referred to the centralized committee that is responsible for that issue. The domain of mission, meaningful purpose and goals was achieved by 74.5% which was mainly attributed to the problematic prioritization of interprofessional goals. Other domains were; patient involvement (68.96%), decision making and conflict management (68.96%), team leadership (69.88%), communication and information exchange (70.8%), and general role responsibilities and autonomy (71.9%). This means that all domains ranged from low to moderate in their current status. The overall perceived interprofessional collaboration was moderate as it was achieved by 71.66%.

Inferential statistics show that gender, age, specialty and position had elicited statistically significant variations among healthcare providers (P value less than 0.05). The domains of interprofessional collaboration (except general relationships) also influenced by some independent variables and there were resultant significant variations. Post hoc tests reported some statistically significant differences among the groups of variables. Males and expert healthcare providers inversely affect general role responsibilities and autonomy. Older health professionals, Al-Hilal hospital as a workplace and regular employees positively influenced decision making and conflict management. Professionals bearing diploma certificate and nurses were positively influencing factors on patient involvement. Nurses were better off than pharmacists in communication and information exchange. The health providers who were having more experience years showed highest in community linkages and coordination of care. In addition, interviews and focus group discussions reported enablers and barriers to the interprofessional collaboration among healthcare providers at governmental hospitals.

The study concluded that interprofessional collaboration is a new multi-faceted concept to healthcare professionals at governmental hospitals in Gaza governorates and then interventions aiming to enhance it, must be multi-level. Emphasis should be directed at establishing system-level policies, promoting organizational environment, supporting healthcare professional development and greater patients' involvement in the track of providing quality health services and improving health outcomes.

Table of Contents

Subject	Page
Acknowledgement	i
Declaration	ii
Abstract	iii
Table of contents	iv
List of tables	vii
List of figures	viii
List of annexes	viii
List of abbreviations	ix
Chapter 1: Introduction	**1**
1.1 Background	1
1.2 Problem of the study	2
1.3 Significance	3
1.4 Aim	3
1.5 Objectives	4
1.6 Research questions	4
1.7 Study context	4
1.7.1 Geographic and demographic context	4
1.7.2 Gaza Strip	5
1.7.3 Socio-economic context	5
1.7.4 Palestinian health sector	5
1.7.5 Palestinian Ministry of Health	6
1.7.6 Governmental Hospitals in Gaza governorates	6
1.7.6.1 Study locations	7
1.7.6.1.1 Kamal Adwan hospital	7
1.7.6.1.2 Al-Sifaa medical complex	7
1.7.6.1.3 Al-Rantisy hospital	7
1.7.6.1.4 Al-Aqsa hospital	8
1.7.6.1.5 European Gaza hospital	8
1.7.6.1.6 Al-Hilal hospital	8
1.8 Operational definitions	8
Chapter 2: Literature Review	**11**
2.1 Conceptual framework	11
2.1.1 Interprofessional collaborative care	11
2.1.2 Socio-demographic factors	11
2.1.3 Enablers of interprofessional collaboration	11
2.1.4 Barriers to interprofessional collaboration	12
2.2 Literature review	14
2.2.1 Interprofessional collaborative care	14
2.2.1.1 Effect of socio-demographic factors on IPC	16

2.2.1.2 Core competencies of IPC **21**
2.2.1.2.1 Interprofessional communication **22**
2.2.1.2.2 Role clarification **23**
2.2.1.2.3 Patient centeredness **25**
2.2.1.2.4 Team functioning **27**
2.2.1.2.5 Collaborative leadership **28**
2.2.1.2.6 Interprofessional conflict resolution **29**
2.2.1.3 Enablers of IPC **31**
2.2.1.3.1 System factors **31**
2.2.1.3.2 The appropriate model **32**
2.2.1.3.3 Interprofessional education **32**
2.2.1.3.4 Ethical practice **33**
2.2.1.3.5 Knowledge in practice **34**
2.2.1.3.6 Interprofessional working **34**
2.2.1.3.7 Reflection **35**
2.2.1.4 Barriers to IPC **35**
2.2.1.4.1 Individual-level barriers **35**
2.2.1.4.2 Practice-level barriers **36**
2.2.1.4.3 System-level barriers **38**
Chapter 3: Methodology **40**
3.1 Study design **40**
3.2 Study settings **40**
3.3 Study period **41**
3.4 Study population **41**
3.4.1 Sample size **41**
3.5 Eligibility criteria **43**
3.6 Study instruments **43**
3.6.1 Quantitative instruments **43**
3.6.2 Qualitative instruments **44**
3.7 Scientific rigor & Trustworthiness **44**
3.7.1 Quantitative method **44**
3.7.2 Qualitative method **46**
3.8 Data collection **47**
3.8.1 Quantitative data collection **47**
3.8.2 Qualitative data collection **47**
3.9 Response rate **48**
3.10 Data analysis **48**
3.11 Ethical and managerial considerations **49**
3.12 Study limitations **49**
Chapter 4: Findings and Discussion **51**
4.1 Findings **51**
4.1.1 Socio-demographic characteristics **51**
4.2 Responses of participants on IPC' domains **53**
4.2.1 Mission, meaningful purpose and goals **53**

4.2.2 General relationships **55**
4.2.3 Team leadership **56**
4.2.4 General role responsibilities and autonomy **58**
4.2.5 Communication and information exchange **59**
4.2.6 Community linkages and coordination of care **61**
4.2.7 Decision making and conflict management **62**
4.2.8 Patient involvement **63**
4.3 Discussion **65**
4.3.1 Differences in IPC' domains in reference to socio-demographic aspects **66**
4.3.1.1 Differences in mission, meaningful purpose and goals **67**
4.3.1.2 Differences in general relationships **67**
4.3.1.3 Differences in team leadership **68**
4.3.1.4 Differences in general role responsibilities and autonomy **69**
4.3.1.5 Differences in communication and information exchange **71**
4.3.1.6 Differences in community linkages and coordination of care **72**
4.3.1.7 Differences in decision making and conflict management **72**
4.3.1.8 Differences in patient involvement **74**
4.3.2 Differences in IPC in reference to socio-demographic characteristics **76**
4.4 Cross-hospitals Analysis **79**
Chapter 5: Conclusion and Recommendations **86**
5.1 Conclusion **86**
5.2 Recommendations **90**
5.2.1 System recommendations **91**
5.2.2 Organizational recommendations **91**
5.2.3 Individual recommendations **91**
5.3 Recommendations for new areas of research **92**
5.3.1 Practice research **92**
5.3.2 Outcomes research **92**
5.3.3 Health system research **92**
References **93**
Annexes **103**
Arabic abstract **120**

List of Tables

No.	Title	Page
Table 3.1	The total number, percentages and required sample of healthcare providers within the study settings	**42**
Table 3.2	The breakdown of Cronbach's α of the original pilot sample	**45**
Table 3.3	The breakdown of Cronbach's α of the current pilot study	**46**
Table 4.1a	Socio-demographic characteristics of study participants	**51**
Table 4.1b	Work-related characteristics of study participants	**52**
Table 4.2	Participants' responses on domain (mission, meaningful purpose, goals)	**54**
Table 4.3	Participants' responses on domain (general relationships)	**55**
Table 4.4	Participants' responses on domain (team leadership)	**57**
Table 4.5	Participants' responses on domain (general role, responsibilities and autonomy)	**58**
Table 4.6	Participants' responses on domain (communication and information exchange)	**60**
Table 4.7	Participants' responses on domain (community linkages and coordination of care)	**61**
Table 4.8	Participants' responses on domain (decision-making and conflict management)	**62**
Table 4.9	Participants' responses on domain (patient involvement)	**64**
Table 4.10	Level of collaboration among study participants	**65**
Table 4.11	Differences in domains-related groups of IPC in relation to socio-demographic characteristics	**66**
Table 4.12	Differences in overall IPC in relation to socio-demographic characteristics	**76**

List of Figures

No.	Title	Page
Figure 2.1	Conceptual framework	**13**
Figure 4.1	comparison between means of the eight item within domain (1)	**54**
Figure 4.2	comparison between means of the eight items within domain (2)	**56**
Figure 4.3	comparison between means of the nine items within domain (3)	**57**
Figure 4.4	comparison between means of the ten items within domain (4)	**59**
Figure 4.5	comparison between means of the six items within domain (5)	**60**
Figure 4.6	comparison between means of the four items within domain (6)	**61**
Figure 4.7	comparison between means of the six items within domain (7)	**63**
Figure 4.8	comparison between means of the five items within domain (8)	**64**
Figure 4.9	comparison between means of the domains and the overall mean	**65**

List of Annexes

No.	Title	Page
Annex 1	Directory of Scientific Research Priorities in Palestine	**103**
Annex 2	Palestine – Gaza governorates Map	**104**
Annex 3	Sample calculations	**105**
Annex 4	The study quantitative instrument-English	**106**
Annex 5	The study quantitative instrument-Arabic	**110**
Annex 6	Interviews and Focus group schedule	**115**
Annex 7	Collaborative Assessment Scale (CAS)	**116**
Annex 8	Ethical approval of Helsinki Committee	**117**
Annex 9	Official approval letter from the general directorate of human resource management and development	**118**
Annex 10	Official approval letter from the general directorate of hospitals - MOH	**119**

List of Abbreviations

ANOVA	One way Analysis of Variance
BSc	Bachelor of Science
CIHF	Canadian Interprofessional Health Framework
CAS	Collaborative Assessment Scale
CPAT	Collaborative Practice Assessment Tool
EGH	European Gaza Hospital
GGs	Gaza Governorates
GS	Gaza Strip
GDP	Gross Domestic Product
IPC	Interprofessional Collaboration
IPE	Interprofessional Education
MOH	Ministry of Health
NICF	National Interprofessional Competency Framework
OPT	Occupied Palestinian Territories
PCBS	Palestinian Central Bureau of Statistics
PNHS	Palestinian National Health Strategy
PCC	Patient-Centered Care
PHC	Primary Health Centers
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
WB	West Bank
WHO	World Health Organization

Chapter 1

Introduction

1.1 Background

Due to the complexities of health issues, no profession alone can address all problems or face the challenges of healthcare system. Health system seeks to provide quality health services and improve health outcomes. This means that interprofessional collaborative care (IPC) is required for health providers as well as patients (Chan & Wood, 2010). Regarding the benefits of IPC, the need of healthcare teams to collaborate becomes imperative. Across professions, interprofessional skills necessary for work are linked to increased job satisfaction, innovation, and effective care, improved planning and policy development, better communication and enhanced conflict management (Mitchell, M. et al, 2010).

On the track to improve IPC, it is necessary to understand its nature. Collaborative care practice in healthcare occurs when multiple health providers from different professional backgrounds deliver integrated services by communicating with patients, their families, other providers and communities across care settings (Gilbert, J. H. et al, 2010).

In 2010, an expert panel convened to develop core competencies for IPC and identified four core domains in 2011. Those core domains are: values/ethics for interprofessional practice, roles/responsibilities, interprofessional communication and teams and teamwork (Panel et al, 2011). Interprofessional core competencies are identified to guide current students and experienced professionals to effectively work together a transformative direction for improving the health care system (Schmitt et al, 2011).

In addition to the interprofessional core competencies, there are other capabilities that are used by the Combined Universities Interprofessional Learning Unit in the United Kingdom as they are dynamic enough to respond to the needs and adapt to the changes in health environment. Proposed capabilities include: ethical practice, knowledge in practice, interprofessional working, and reflection (Walsh et al, 2005).

On the other hand, there are barriers to the IPC that are consistent and related to communication, role understanding, conflict management and others (Suter, E. et al, 2009).

One of the big challenges is how health providers will adopt the new knowledge, skills and attitudes to be able to work with other providers from other disciplines or professions towards creating collaborative environment in order to deliver collaborative, patient-centred care (PCC) (Haire, 2010). Collaborative training and interprofessional education (IPE) for current professionals to work together and health students as future healthcare teams are the suggested steps that may play an important role in improving patient outcomes (Bridges et al, 2011).

Before determining the implementation programs and future plans that aim at achieving IPC among healthcare providers, assessment of the current situation of that issue in the view of interprofessional competencies, capabilities and barriers to collaborative care is needed for identifying strengths, weaknesses, opportunities and threats as main pillars for any future plan or development strategy for IPC.

1.2 Problem Statement

"*Collaboration is critical to the success of healthcare operations in an environment of limited resources and expectations of accountability*" (Freshman et al, 2010).When health care professionals are not communicating effectively, medical errors and patient harm will be the result (Catherine, D. et al, 2009). These errors have the potential to cause severe injury or unexpected patient death. Even more disturbing, communication failures are the leading root causes of the sentinel events reported to the Joint Commission from 1995 to 2004 (Hughes, 2008). Health care teams that do not trust, respect, and collaborate with one another are more likely to make mistakes that could negatively impact the safety of patients. So, the absence of effective collaboration among healthcare providers will affect negatively the health outcomes and the quality of provided services.

Regarding the Palestinian National Health Strategy (PNHS) 2014-2016, Ministry of Health (MOH) stated that one of the important challenges in its work is the weak coordination and communication within healthcare providers and sectors (PNHS, 2014-2016). Thus, the MOH is striving to strengthen the collaboration among all partners in the health sector including health service providers and also health sector donors as one of its priorities in the near future according to the directory of scientific research in Palestine 2014-2019 (**Annex 1**).

1.3 Significance of the Study

Collaborative teamwork is now a World Health Organization (WHO) priority for action (McCallin, A., & McCallin, M., 2009). Poor communication between healthcare professionals, patients and their care providers has also emerged as a common reason for adverse outcomes in various contexts (WHO, 2012). Research has shown that there are fewer errors and better treatment outcomes when there is effective collaboration among healthcare providers themselves as well as with their patients, and when patients are fully informed and educated about their treatment and medication.

In health systems of various countries, both the human and financial costs are enormous. Generally, this is because health providers do not function in teams. The collaborative team working is now widely considered as an essential tool for constructing a more patient-centered, coordinated, and effective health care delivery system (Mitchell, P. et al, 2012). There is increasing evidence that coordinating care by assigning teams of providers can help reducing medical errors and improving quality, as well as helping providers to give patient-centered, quality care to an increasingly diverse patient population.

As a fragmented system, the Palestinian health care system is experiencing deficits in human resources, financial instability, and complex healthcare needs (Mataria et al, 2009). Hence, it is increasingly important for healthcare providers to collaboratively attain a healthy Palestinian community that enjoys high-quality, comprehensive and sustainable health care regarding the vision of health sector strategic plan of Gaza Governorates (GGs) 2014-2018. So, strengthening of collaborative relationships among healthcare professionals is considered one of the priorities of scientific research in Palestine.

On the basis of assessment, it will be essential to concentrate on such issues that support collaboration in order to overcome the complex challenges and to improve health outcomes through international models that will contribute to the development of the health system and its critical components especially workforces.

1.4 Aim of the Study

The overall aim of this study is to assess the interprofessional collaborative care practice among healthcare providers at governmental hospitals in GGs in order to improve the health outcomes.

1.5 Objectives

1. To study the effect of socio-demographic factors on the current IPC among healthcare providers at governmental hospitals in GGs.
2. To recognize the strengths of IPC practice among health care providers in the light of IPC domains.
3. To recognize the weaknesses of IPC practice among health care providers in the light of IPC domains.
4. To illustrate the enablers and barriers to IPC at governmental hospitals in GGs.
5. To recommend steps for implementing plans and programs in order to improve the current status of IPC in the view of study results.

1.6 Research Questions

This study is expected to answer the following research questions:

1. How do socio-demographic factors affect the current IPC significantly?
2. What are the strengths and weaknesses of current IPC in the light of its related domains?
3. Which enablers contribute to improving collaboration among healthcare providers?
4. What are the barriers to IPC among healthcare providers?

1.7 Context of the Study

1.7.1 Geographic and Demographic Context

Palestine is a small country located in Southwest Asia on the Mediterranean Sea, and shares borders with four countries: Jordan, Lebanon, Syria, and Egypt (**Annex 2**). The end of 2015 estimates that the total number of Palestinians all over the world to be about 12.37 million, of which 4.75 million live in the Occupied Palestinian Territories (OPT) which is 38.4% of the total Palestinians worldwide. According to the Palestinian Center Bureau of Statistics (PCBS), of the 4.75 million who live in the OPT, 2.90 million live in the West Bank (WB) (61.0%), and 1.85 million live in the Gaza Strip (GS) (39.0%) (PCBS, 2015). The OPT has a young population; the percentage of individuals aged (0-14) constituted 39.4% of the total population at the end of 2015. Furthermore, 37.0% lived in the WB and 42.8% lived in the GS. The elderly population aged (65 years and over) constituted only about 2.9% of the total population, with 3.2% in the WB and 2.4% in the GS (PCBS, 2015).

1.7.2 Gaza Strip

GS comprises a narrow zone of land located in the southwest part of Palestine with about 1.82 million of inhabitants; it is composed of five governorates: North Gaza, Gaza, Mid Zone, Khan Younis, and Rafah. In the OPT, Gaza governorate has the second highest number of population with 13.3% of the total population, which comes after Hebron with 15% of the total population (PCBS, 2015).

1.7.3 Socio-economic Context

The ongoing blockade, current occupation, and frequent wars have weakened the Palestinian economy to unprecedented level. In the year 2012, the estimated gross domestic product (GDP) was $1679.3: $2093.3 in WB and $1074.5 in GS (PCBS, 2013a). Labor force participation rate in 2013 was 43.6%, distributed as 69.3% for males and 17.3% for females. In 2012, Out of the total rate of employment: full employment rate was 70.1%, underemployment rate was 6.9%, and unemployment rate was 23.0% (PCBS, 2013b). According to the United Nations Office for the Coordination of Humanitarian Affairs (2014), The current poverty and unemployment rates are very high; In the GS, unemployment rate has increased dramatically since mid-2013, following halt of the illegal tunnel trade with Egypt, soaring from 28% in the third quarter of 2013 to 45% in the second quarter of 2014; almost 70% of the youth aged 20-24 were unemployed in GS in the second quarter of 2014 and further deterioration is highly expected (OCHA, 2014). The total diffusion rate of poverty among Palestinian individuals was 25.8% in 2011: 17.8% in WB and 38.8% in the GS. In 2014, the poverty rate in the GS has increased to 39% (World Bank, 2014). In 2012, the literacy rate was 96.4% in the GS (98.2% for males versus 93.6% for females) (PCBS, 2013b).

1.7.4 Palestinian Healthcare Sector

The Palestinian health sector is compromised of three major components, primary health care (PHC), secondary health care and tertiary health care. Four major service providers share responsibilities in health care service provision: governmental health sector (MOH), United Nations Relief and Works Agency (UNRWA), Non-governmental organizations and the private sector. PHC services are provided by various providers including the MOH; nongovernmental organizations; UNRWA and the Palestinian Red Crescent Society. Primary health care centers throughout Palestinian governorates have expanded from 454 centers in 1994 to 750 centers in 2012, a 65.2% increase. The MOH is the main PHC

provider operating 61.3% of the total PHC centers. The MOH is also the main provider of secondary health care services. It owns and operates 2,979 hospital beds distributed over 25 hospitals throughout the various Palestinian governorates. The overall number of hospital beds in Palestine is 5,414 beds distributed over 79 hospitals; 49 are in the WB with 3,163 beds, making up 57.6% of total hospital beds, the remainder is in the GS (PNHS, 2014-2016).

1.7.5 Palestinian Ministry of Health

The MOH is responsible for governing and regulating the Palestinian health sector to ensure appropriate use of resources for a sustainable health delivery system. MOH is also responsible for ensuring that necessary laws and regulations are in place, stimulating partnerships with other services providers and sectoral partners, and managing resources. The MOH also leads and institutionalizes regulatory and planning activities in the health sector including accreditation and licensure. The MOH is also responsible for ensuring a sustainable health financing, reviewing and updating the health insurance system, as well as implementing specific area strategies such as the national health information strategy, national pharmaceutical strategy, national women and maternal health strategy, non-communicable diseases management strategy and others. As the main health service provider in Palestine, the MOH aims to ensure equitable delivery of quality health services to all Palestinians in line with international, regional, and national standards within the framework of Palestinian laws and regulations, in particular, the Palestinian Public Health Law (PNHS, 2014-2016).

1.7.6 Governmental hospitals in GGs

In GGs, there are 13 governmental hospitals, the total number of governmental hospital beds in 2014 was 2107 beds: 1668 for inpatients, and 447 for daily care; bed occupancy rate was 86% with an average of 3 days residency in hospital (MOH, 2014).

1.7.6.1 Study locations

The study was conducted in six governmental hospitals located in five different governorates in GS and distributed from north to south as follows; Kamal Adwan, Al-Shifaa Medical Complex, European Gaza, Pediatrics (Al-Rantisy), Al-Aqsa Martyrs and Obstetrics (Al-Hilal) hospitals.

1.7.6.1.1 Kamal Adwan Hospital

Kamal Adwan hospital is located in the northern GS in Beit Lahia town in the southern tip of the eastern project of Beit Lahiya, where it is the largest governmental hospital in the Northern Province. It provides medical services to the citizens within the province in which estimated population is 280 thousand people, and includes Beit Hanoun, Beit Lahiya and Jabalia. The hospital was opened in mid-2002, after making adjustments to the construction of Beit Lahia dispensary and the establishment of another building beside it which belongs to hospital management including inpatient pharmacy, kitchen and medical archive (MOH, 2012).

1.7.6.1.2 Al-Shifaa Medical Complex

It is a medical complex that includes three hospitals: the surgery, internal medicine and obstetrics as well as other support services. The complex is located in the middle of Gaza City, the western region at the crossroads of the intersection of Izz al-Din Al-Qassam Street with Al Wahda Street. Dar Al-Shifaa Hospital was established in 1964 on 42,000 m^2 to provide health services to Gaza governorate and serve particularly some health services to the residents of the GS populations in general. The most important services provided by Al-Shifaa hospital are heart surgery, burns and plastic surgery and vascular surgery and other specialized surgical services (MOH, 2012).

1.7.6.1.3 Al-Rantisy Hospital

The establishment of the Children's Specialized Hospital was in 2003, to provide specialized services to cover the needs of a segment of sick children numbering more than 600 thousand children, in the age group from birth to the age of 12 years, in addition to children in need of specialists until the age of 15 years. As a building, the hospital became ready in 2006 on an arena of 2500 m^2 to provide quality healthcare for this vulnerable group (MOH, 2012).

1.7.6.1.4 Al-Aqsa Hospital

Al-Aqsa hospital is considered the only hospital in the Mid Zone governorate that provides clinical services for nearly 300 thousand people. In 2001, after the outbreak of the Al-Aqsa Intifada, the MOH started organizing the hospital to work diligently on hospital development in terms of construction and increasing the number of specialized and distinguished medical staff to be able to deliver better quality services (MOH, 2012).

1.7.6.1.5 European Gaza Hospital (EGH)

The hospital began as a project financed by the European Union to the Palestinian people at the end of the first intifada in 1989. Since the arrival of the Palestinian Authority, a dialogue began with the European Union for the transfer of ownership of the hospital to the MOH resulting in the signing of a memorandum of understanding in October 1997. The MOH developed a general plan for the hospital to be a transformative, educational and leading hospital (MOH, 2012).

1.7.6.1.6 Al-Hilal Hospital

The only governmental hospital specialized in obstetrics and women's services in GGs and is located in Tal Al-Sultan, west of Rafah, It was established in 2005 on an area of 4000 m^2 and serves the segment of the population residing in Rafah and provides services in various sections (MOH, 2012).

1.8 Operational definition of terms

Assessment

Assessment is about judging the effect that a policy or activity will have on people or places. It has been defined as the "prediction or estimation of the consequences of a current or proposed action" (Vanclay and Bronstein, 1995).

Governmental Hospital

A public institution in which the primary function is to provide in-patient diagnostic and therapeutic services for a variety of medical conditions, both surgical and nonsurgical. Most hospitals provide some outpatient services, particularly emergency care (WHO, 2004).

Client

A person who seeks or receives services or advice (WHO, 2004).

Healthcare provider

An individual who provides preventive, curative, promotional or rehabilitative health services in a systematic way to people, families or communities (Orlowski, 2016).

Health care team

A group comprising a variety of professionals (medical practitioners, nurses, physical and occupational therapists, social workers, pharmacists, spiritual counselors), as well as family members, who are involved in providing coordinated and comprehensive care (WHO, 2004).

Interprofessional collaborative care

It is a process whereby health services are provided to patients by multiple health caregivers who work collaboratively to deliver quality care (Haire, 2010).

Interprofessional health teamwork

The levels of cooperation, coordination and collaboration characterizing the relationships between professionals in delivering patient-centered care (Panel et al, 2011).

Patient-centered care

A partnership between a team of health providers and a patient where the patient retains control over his/her care and is provided access to the knowledge and skills of team members to arrive at a realistic team shared plan of care and access to the resources to achieve the plan (Canadian Interprofessional Health, 2010).

Interprofessional education

It occurs when two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes (Gilbert et al, 2010).

Interprofessional competencies in health care

Integrated enactment of knowledge, skills, and values/attitudes that define working together across the professions, with other health care workers, and with patients, along with families and communities, as appropriate to improve health outcomes in specific care contexts (Panel et al, 2011).

Patient Safety

It refers to the physical, psychological, environmental and cultural aspects that are related to the patient (Brewer, 2011).

Healthy work environment

It is a practice setting that maximizes the health and well-being of nurses (healthcare providers), quality patients/clients outcomes, and organizational performance and societal outcomes (Registered Nurses' Association of Ontario, 2014).

Health Outcome

Changes in health status which result from the provision of health (or other) service (WHO, 2004).

Chapter 2

Conceptual Framework and Literature Review

This chapter includes two main divisions, the first is the conceptual framework and the second is the literature review.

2.1 Conceptual Framework

The conceptual framework (figure 2.1) represents what is expected to be discussed within this thesis via its chapters and the track to the conclusion from the results. IPC is considered the core of the study, the proposed framework shows three categories that include the factors affecting IPC positively or negatively.

2.1.1 Interprofessional Collaborative Care

IPC plays an integral role in improving health outcomes through enhancing collaborative relationships among healthcare professionals as well as patients. There are six core competencies that build IPC; patient-centered care (PCC), role clarification, team functioning, collaborative leadership, interprofessional communication and interprofessional conflict resolution. Three groups of factors may impact IPC and leads to some changes in its outcomes that are related to health status.

2.1.2 Socio-demographic Factors

The first category involves socio-demographic factors (age, gender, marital status,…etc) as shown in figure (2.1). Regarding the literature review, socio-demographic characteristics may vary in their effect upon IPC from one context to another. Some of these factors may play a positive role in improving collaboration among healthcare providers. On the other hand, some of them negatively affect IPC and health outcomes as a result.

2.1.3 Enablers of IPC

This group involves seven enablers (system factors, the appropriate model, Interprofessional education, ethical practice, knowledge in practice, interprofessional working, reflection) that were extracted after reviewing the literature. These enablers play an important role in facilitating IPC construction and promoting the positive health outcomes.

2.1.4 Barriers to IPC

Another group of factors in conceptual framework includes the barriers to IPC that impede the progress of the concept and the development of its practices among healthcare providers. These barriers will be discussed on three levels; individual, practice and system to identify the impact of each level on IPC.

Therefore, the effect of socio-demographic variables which may be positive or negative in addition to the facilitation of enablers of IPC and the suppression of barriers will give the full depiction about the development of IPC towards the improvement of health outcomes which are relevant to patients, providers and health system as well.

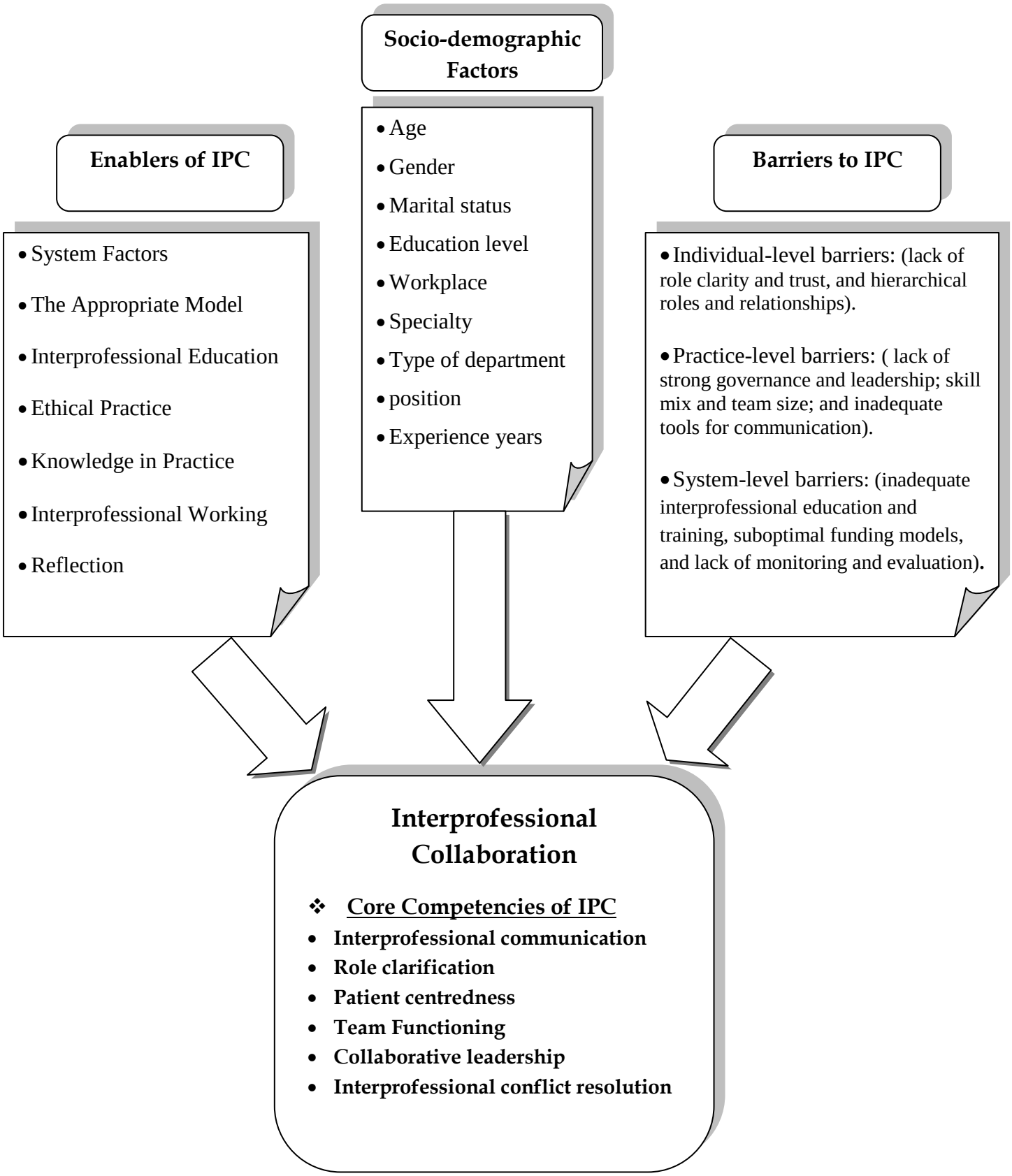

Socio-demographic Factors
Age
Gender
Marital status
Education level
Workplace
Specialty
Type of department
position
Experience years
Enablers of IPC
System Factors
The Appropriate Model
Interprofessional Education
Ethical Practice
Knowledge in Practice
Interprofessional Working
Reflection
Barriers to IPC
Individual-level barriers: (lack of role clarity and trust, and hierarchical roles and relationships).
Practice-level barriers: (lack of strong governance and leadership; skill mix and team size; and inadequate tools for communication).
System-level barriers: (inadequate interprofessional education and training, suboptimal funding models, and lack of monitoring and evaluation).
Interprofessional Collaboration
Core Competencies of IPC
Interprofessional communication
Role clarification
Patient centredness
Team Functioning
Collaborative leadership
Interprofessional conflict resolution

Figure 2.1

2.2 Literature Review

For comprehensive understanding about IPC, the literature review in this chapter will focus on its benefits and core competencies, in addition to socio-demographic factors, enablers and barriers that influence it in orders to build the whole theoretical framework before linking that to the results and findings of this research.

2.2.1 Interprofessional Collaborative Care

Deficiencies in collaboration and communication between healthcare professionals have a negative impact in the provision of healthcare as well as patient outcomes (Martin et al, 2010). In this section of literature review, an overview of the evidence base of IPC benefits and its relationship to patient outcomes will be provided. Here, we will propose the vast majority of eligible publications that indicate some improved outcomes following interventions based on IPC.

The formation of collaborative teams is not a new concept especially in healthcare, so many publications of articles and books on that topic during the past years could be found (Borst, 2011). Interest in the quality and safety of health care delivery continues to grow, and the deficiencies cannot be overcome by any health profession alone (Schmitt et al, 2011). Borrill et al (2000) stated that the primary prescription which policy makers have offered for meeting those deficiencies facing healthcare delivery is the development of interprofessional team working.

IPC occurs when more than one professional work together towards the common goals and needs of patients of high quality (Virani et al, 2012). Also, it is identified in such a manner as a means of dealing with the challenges standing in front of improving healthcare sector outcomes, such as patient safety, workforce shortages, and complex health care needs of populations (Chan & Wood, 2010). This team may involve nurses, dieticians, pharmacists, specialist physicians and community agencies. The team works together as well as patients and their families to identify priorities and develop better pathways to meet both individual and community needs (Chan & Wood, 2010).

According to WHO report, the global crisis in health human resource challenges needs a shift from acute tertiary hospital care to patient-centred. Health team care requires new skills and collaboration between workers and with patients in order to address challenges in public health (WHO, 2006). "*Today collaborative teamwork is no longer an*

option: it is a basic pre-requisite for effective practice and quality care" and has become one of WHO priorities for action (McCallin, A., & McCallin, M., 2009).

As a result, many institutions and organizations have implemented the practices associated with IPC among healthcare providers as well as with patients who are considered an integral members of healthcare team not only in the interest of efficiency and effectiveness but also in the interest of making use of the resources available to the system (Haire, 2010).

There is a significant and negative relationship between the percentage of staff working in teams in acute hospitals and the mortality rate in those hospitals, taking account of local health care needs and hospital size (Borrill et al, 2000).

The growing mass of literature on safety and error prevention exposes that insufficient communication among team members is a significant factor which contributes to harmful consequences (Catherine, D. et al, 2009) which means that numerous advantages could be offered when healthcare providers succeed in forming collaborative healthcare teams of high skills, knowledge and experience. The benefits of collaborative teaming are many and help the individual, the patient and it profits the interprofessional team (Borst, 2011).

Across professions, interprofessional work skills are linked to innovation, and effective services, improved planning and policy development, improved communication, enhanced problem solving, and reduced duplication of services (Mitchell, M. et al, 2010). One of the unique studies in 2012 found that IPC interventions improved provider satisfaction and workplace quality. In addition, there was strong evidence confirming its effectiveness in reducing patient care costs (Suter, E. et al, 2012).

Sommers and colleagues (2000) studied the impact of interprofessional collaborative teams and concluded that collaborative health care teams lowered hospitalization rates and reduced physician visits while preserving function for elderly patients with chronic illness and functional deficits. Significant cost savings were born from reduced hospitalization (Sommers et al, 2000).

IPC potentially permits professionals to search for solutions that go well beyond their own possible vision. It stimulates the active participation of several health care professions. Also, it is dependant in optimizing team participation in shared clinical

decision making within and across professions and cultivating respect for the contributions of all providers (Practice Education Committee, 2013).

Many healthcare providers insisted that once a team is focusing on the patient and has a good understanding of each member's role, it becomes harder to maintain the hierarchy of professions and occupations (Casimiro et al, 2011).

2.2.1.1 Effect of Socio-demographic Factors on IPC

Based on literature review, some studies show that socio-demographic status; age, gender, marital status, specialty, level of education, workplace, type of department, position and years of experience may affect team working and thus collaboration among healthcare providers.

There is a general principle stating that the more the diversity of socio-demographic factors belonging to healthcare team members the more is the negative impact in team functioning as a result of social isolation, decreased communication and poor performance (Weiss, Tilin, & Morgan, 2013). These negative consequences could be diminished when the team members work together for a long time (Saha et al, 2006; Weiss et al, 2013).

This seems to be consistent with the results stated by Borrill as diverse socioeconomic status produces less positive effects on team performance. These adverse effects may lead to high turnover rates in members of diverse demographic features such as age, educational level, status and work experience. Initially, teams whose members have different cultural backgrounds tend to carry out more defectively than culturally similar teams, although this effect diminishes over time (Borrill et al, 2000).

Panel et al stated that professional hierarchies created by demographic and professional differences are common but create dysfunctional communication patterns working against effective interprofessional teamwork (Panel et al, 2011).

Regarding the influence of age, Wegge et al (2008) proposed that task complexity plays an important and critical role in obtaining a positive relationship between age composition in teams and team performance. That is, in complex group decision-making tasks, the work of team members will be facilitated as older workers may have the knowledge and time to help younger ones.

In another study, age was a negatively influencing factor on IPC between nurses and physicians in the hospitals of Northern Greece as the variances were statistically significant (P = 0.004) (Dimitriadou et al, 2008).

Gender composition also has a significant effect on group performance, where groups involving a high number of females performed worse and reported more health disorders than did gender-diverse teams. As expected by Wegge et al, effects of gender proportions were most articulated in large groups. Thus, age and gender diversity seems to play a unique role in performance and well-being. The moderating role of both group size and task complexity for both effects of age and gender diversity respectively further suggests that the impact of these two variables relies on different group processes (Wegge et al, 2008).

However, with respect to gender-diverse groups, positive group outcomes are also often perceived to be a product of gender-based behavioral differences. For instance, whereas men tend to be assertive, opinionated, and task-oriented, women tend to act friendly, agree with others, and be process-oriented. It is the combination of these differences that contributes to the superior performance of gender-diverse groups (Alexander et al, 1996; Myaskovsky et al, 2005).

Another study stated that gender and social class issues have been factors in the friction and conflict that has existed between professions until present day (Hall, 2005).

In a third study, Hansson et al (2010) also examined the different attitudes towards collaboration among participants in relation to gender and age. They found that neither gender nor age was found to have a significant impact on attitudes towards collaboration among participants.

Regarding team education, there are reasons for poor communication including differences in educational background, violence of members of the team, and the assumption that the doctors would be the leaders. On the other hand, there is growing evidence, supported by the results from the same research, that teams which are diverse in terms of skills and educational specialization produce high levels of innovation and clear strategic thinking (Borrill et al, 2000).

In 2008, Dimitriadou et al illustrated that the education level of nurses in hospitals positively affected the collaboration among nurses as well as with other professionals. This factor was statistically significant as P-value was 0.001 (Dimitriadou et al, 2008).

Another study aimed at determining how the level of education (diploma/ baccalaureate, master's/doctoral) affects nurses' perceptions of their IPC. It was inconsistent with Dimitriadou et als' as it suggested that higher education levels negatively affect collaboration. Based on its findings, the researcher recommended that graduate-prepared nurses should be included within teams which considerate IPC. The findings empowered the need for IPE, particularly at the graduate level (Miller, 2004).

In his study, Hansson et al collected four hundred and one answers from study participants. Nurses (mean 51.7) were significantly more positive about collaboration than general practitioners (mean 49.4). There was no difference between younger and older, male and female general practitioners. A positive attitude towards collaboration did not seem to be a part of the general practitioners' professional role to the same extent as it is for nurses. Professional norms seem to have more influence on attitudes than do gender roles. Nurses are more confident in their profession than general practitioners (Hansson et al, 2010).

In a qualitative study, Makowsky et al. discussed the collaboration between pharmacists, physicians and nurses in hospitals. They found that pharmacists develop trusting relationships and contribute to patient care positively. But they showed lows in struggling with documentation and workload during engagement into the health care team. Study participants perceived that the integration of pharmacists into the teams resulted in facilitating positive patient outcomes by improving decision-making about drug therapy, continuity of care and patient safety (Makowsky et al, 2009).

Comprehensive cultures of workforces that value diversity, contrasted with more homogeneous ones, enhance productivity and creativity. It is also true that diversity can cause discomfort, conflict and even disorders. Yet, if the workforce culture allows the different voices to be heard and integrated, then the needs of patients are more effectively addressed. Avoiding costly proceedings is another organizational benefit (Salisbury & Byrd, 2006).

In their study, Nembhard and Edmondson suggested that physicians think that they work collaboratively with other nurses. This may be explained in respect to higher status of physicians that makes them less aware of nurses' difficulties in their striving to collaborate. (Nembhard & Edmondson, 2006). In another study, nurses refused that physicians underestimate them but disagreed that the physician knows the work of nurse well (Dimitriadou et al, 2008).

In their article, Alexander et al. pointed that team-based health care assumes that groups representing multiple professions can work together to apply care plans that are comprehensive and integrated. It also assumed that professionals can function effectively in a mutually dependent relationship with members of other occupational groups. The study examined team demographic composition and size. Hierarchical linear modeling was used to analyze 106 Veterans Affairs hospitals. Results indicated that members who work on more diverse and larger teams have lower perceptions of team functioning (Alexander et al, 1996).

In another study prepared to determine the extent to which demographic factors accounted for general health questionnaires, differences between those not working in teams, those working in teams and those working in semi-structured teams, were examined through conducting Chi-Squared tests of these groups by demographic factors. This included occupational group, gender, marital status and the organization, time employed in the National Health Service, time employed in current post, and age. There was a significant value only in the case of occupational group. Borrill et al therefore conducted an analysis of variance by team type (non-team, team, semi-structured team) and occupational group by general health questionnaires scores. There were significant effects for occupational groups but this did not erase the effect of team type on scores of general health questionnaires. There were no significant interactions between occupational group and team type group on the general health questionnaires (Borrill et al, 2000).

In 2005, Hall evolved reports belong to the effect of professional culture on effective interprofessional teamwork. He found that each health care profession has a different culture which includes values, beliefs, attitudes and behaviors. Professional cultures have grown as individual professions developed, reflecting historic factors, as well as social class and gender issues. Educational experiences and the socialization process that occurs during the training of each health professional re-support the general values and problem-solving approaches. Increasing specialization has led to even further immersion of the learners into the knowledge and culture of their own professional group. These professional cultures may play a role to the challenges of effective IPC. Insight into the educational, systemic and personal factors which contribute to the culture of the professions can help in guiding the progress and creating educational steps towards improving IPC (Hall, 2005).

The size of the team is also important, since greater teams experience much more tension on effective communication. In primary and secondary health care, teams can be more than twenty members in size. These teams would be more correctly termed organizations. This would not be a problem in the presence of adequate training and enhanced communication (Borrill et al, 2000).

Wegge et al studied the team size as a moderator in team performance. They concluded that the members of small groups have the ability for well-communication, decreasing conflict and improving performance more than those within large groups (Wegge et al, 2008).

With regard to the experience of healthcare providers, Mitchell et al. conducted that new team members work together to recognize the roles and responsibilities clearly. They do so to ensure that roles are well suited, distinctive enough discrete and that the experience is harmonized for patients. After a period of time, roles and responsibilities will be clarified. Team members may find themselves not comfortable in this situation. As the work continues, health providers seek support of various aspects to overcome negative responses. The team have to promote an environment of sustainable learning in which striving advice or help is considered as a strength (Mitchell, P. et al, 2012).

Regarding position in hospitals, a Greek study showed a statistically significant variations among nurses' collaboration in relation to their position (Dimitriadou et al, 2008). In relation to task nature and administrative level, Cott used a social network analysis of 93 health care workers across their multidisciplinary long-term care teams to investigate communication processes within teams. She concluded that higher status interprofessional members communicated most openly and worked fairly autonomously across loosely structured tasks, with low levels of authority. In contrast, hierarchical nursing sub-teams did not report high levels of information sharing (Cott, 1997).

In 2011, Casimiro et al said that the composition and operation of interprofessional teams will vary in relation to the clinical setting. What works well at one site may not be appropriate in another. The specific form that an interprofessional team may approve in a particular clinical setting is a question for further study (Casimiro et al, 2011).

2.2.1.2 Core Competencies of IPC

Over the past years, competencies have developed in order to identify the knowledge, skills, attitudes and behaviors required to be a successful provider in any profession. However, a generally accepted framework for collaborative competencies is missing, which makes regular preparation of staff challenging (Suter, E. et al, 2009). A National Interprofessional Competency Framework (NICF) had been developed based on reviewing the literature to help professionals reacting with them to build the foundation of collaboration with others from various professions (Canadian Interprofessional Health, 2010).

Tardif explained five key pillars to the integration of competencies; as they are complex, additive, integrated, developmental and evolutionary. They are complex and this results from the dynamic organization of components; additive due to the application of knowledge, skills, attitudes to invent judgments; integrated as a diversity of individual resources; developmental; and evolutionary that is applied within a given context (Tardif, 2004).

This NICF provides an integrative approach of six competency domains highlighting the knowledge, skills, attitudes and values that form the decisions which are essential for IPC. The six competency domains are: interprofessional communication; PCC; role clarification; team functioning; collaborative leadership and interprofessional conflict resolution (Canadian Interprofessional Health, 2010).

The set of competencies in this framework gives the providers the chance to apply the competencies without paying attention to their level of skill or the type of practice setting. For more understanding, the six competency domains are explained below individually. Although their application is interdependent of each other, the result is a dynamic and flexible foundation for IPC. The framework comprises: (Canadian Interprofessional Health, 2010)

- Two domains that support the others: interprofessional communication and PCC.
- Four domains within the integrated whole: role clarification, team functioning, interprofessional conflict resolution and collaborative leadership.

The two supporting domains always influence the other four. Also, collaborative PCC and interprofessional communication with other health professionals will be relevant in all situations.

The learning of IPC competencies will be useful for health professionals in order to gain needed knowledge and skills to work together in a comfortable context of mutual respect, clear roles and responsibilities, and effective communication. The establishment of these competencies for health professionals provides a transformative direction for improving the health care system and its outcomes (Schmitt et al, 2011).

2.2.1.2.1 Interprofessional Communication

Suter et al (2009) said that front-line health professionals identified communication as the second core competency domain (Suter, E. et al, 2009), most frameworks communication represents it as the first core competency of IPC. When they are ready, communication competencies help professionals in preparing for effective collaborative practice (Panel et al, 2011).

In the journal of physiotherapy, McCallin, A., and McCallin, M. (2009) stated that the main factors for successful collaborative teamwork are understanding others' roles and effective communication. Effective communication becomes more necessary when the shared leadership of collaborative teamwork is considered. Improving communication and encouraging mutual understanding between healthcare professionals are a must for the success of IPC.

Highly functioning care teams are more likely to occur when there is good supportive leadership, well-trained teams, clear tasks and obvious guidelines about decision making and communication (Sevin, C. 2009). Maintenance and continuity of communication channels among team members enable them to preserve specialized functions (Chan & Wood, 2010).

In one research report, Casimiro et al (2011) stated that having organizational mechanisms is a priority instead of care coordination and communication among team members. Organizational mechanisms strongly influence the efficacy of the interprofessional team. These problems may show a lack of communication mechanisms, or insufficient use of the available communication tools.

Current research indicates that ineffective communication among health care professionals is one of the leading causes of medical errors and adverse events that are relevant to patient health status. In acute care settings, communication failures lead to increases in patient harm, hospitalization length, as well as more intense health provider

dissatisfaction and misuse of resources. Hence, Catherine Dingley et al (2009) suggested a project of strategies to enhance collaborative communication which can be successfully implemented in the acute care settings and result in preventing negative patient outcomes (Dingley, C. et al, 2009).

All healthcare professionals need communication skills to deal with each other, especially those from various professions, as well as patients and their families in a collaborative, responsive and responsible manner. There are several methods of communications in an interprofessional environment which are demonstrated through listening, negotiating, consulting, interacting, etc. Trust and full transparency are the dominant features of respectful interprofessional communication in all interactions among team members (Canadian Interprofessional Health, 2010).

In 2011, Bartunek published an article aimed at fostering intergroup relationships among physicians, nurses and administrators. He found that communication across disciplines of practice needs improvement. In addition, Bartunek stated that communication difficulties are often more a symptom than a problem. The importance of friendship among those professionals could be the basis for alleviating communication problems (Bartunek, 2011).

At a psychiatry hospital in Tamilnadu, India, a mental health team works in an interprofessional manner to provide healthcare to patients. In this setting, they consider that open and honest communication is one of the main factors that contribute to their success as interprofessional collaborative team (Gilbert, J. H. et al, 2010).

In an interprofessional capability framework, Brewer, 2011 posited suggestions for effective communication. These included demonstrating and developing skills in effective oral and written communication, respect for others, responding to, and syntheses of information from others and demonstrating culturally safe communication skills (Brewer, 2011).

2.2.1.2.2 Role Clarification

Canadian Interprofessional Health Framework (CIHF), 2010 explained this competency as it occurs when professionals understand their own role and the roles of others and then reflect this knowledge on their work in order to achieve patient care goals appropriately. Each must have the ability to listen to other professionals, to identify the points of

convergence and divergence, and to avoid conflict. Role clarity is essential for teamwork in order to determine those providers of warranted knowledge and skills to address patient needs in an equitable distribution of workload (Canadian Interprofessional Health, 2010).

In their article, Lingard et al (2002) strive to establish a construction for the concept of "others" in an operating room. They stated that role clarification and identification of practical attributes that are related to physicians, nurses or healthcare administrators is complex. This involves challenges over time, as new professionals add tacit knowledge of what their roles really mean in their community.

Role understanding in addition to effective communication are the core competencies for patient-centered collaborative practice. There are evidence-based positive outcomes that are related to patients and providers for both competencies. Focusing on those two core competencies is more essential than concentration on a large number of attitudes, knowledge and skills in facilitating the integration of efforts to attain interprofessional collaborative goals (Suter, E. et al, 2009).

Role confusion was one of the key factors which prevent collaboration. This was the result of a study that examined IPC between registered nurses and occupational therapists in an acute care setting. There were other harmful factors such as time constraints, personality factors and lack of occupational therapy advocacy (Loy et al, 2015). Martin et al (2010) found similar results when studied the collaboration between nurses and physicians. Misunderstanding of each other's roles and tasks without explicit descriptions were barriers to good interprofessional relationships.

In another study, there was a practical emphasis on the challenges that physiotherapists face from the perspective of improving healthcare team work. Those difficulties were related to communication, understanding other health professionals' roles and effectiveness team working skills (McCallin, A., & McCallin, M., 2009).

Regarding their study, Michan and Rodger (2000) explained the characteristics of effective teams and the importance of role clarification to all team individuals. They stated that role conflict resulting from different priorities between clinical and professional issues can be alleviated when healthcare professionals work together to accomplish better work (Michan & Rodger, 2000).

Role clarity is considered one of the principles of team-based health care. This is because it optimizes the team's efficiency through clear expectations for each team

member's functions, responsibilities, and accountabilities. This offers the team more advantages thereby accomplishing more than the sum of its parts (Mitchell et al, 2012).

Clarification about team members' roles is one way to reduce competition. To achieve better team function, members need to communicate clearly with the others in their team, understand each other's roles, trust one another, and make decisions as a collaborative team (Nolte & Tremblay, 2005).

Movement towards role clarification requires deep discussion to recognize beliefs and values that trigger boundaries of each discipline. Also, discussion is needed around patients' participation within the health care team in order to create a culture for enhancing IPC (Orchard, Curran, & Kabene, 2009).

2.2.1.2.3 Patient-centredness

Orchard (2010) defines patient-centred collaborative care as " *a partnership between a team of health providers and a patient where the patient retains control over his/her care and is provided access to the knowledge and skills of team members to arrive at a realistic team-shared plan of care and access to the resources to achieve the plan*".

Regarding this core competency, health providers look for and value the engagement of patients as well as their families to be active partners in enhancing IPC. In terms of PCC, patients are considered as experts of their life and play a critical role in making decisions about their treatment plan (Brewer, 2011; Canadian Interprofessional Health, 2010).

Based on the literature, Pelzang (2010) in his article seeks to build a concept for analysis PCC, including definition, concepts and theoretical perspectives. The conclusion was that PCC is understood to be a healthcare system which considers patient as a whole person with biological, psychological and social needs. Respect, shared decision-making with team members and communication are seen as basic elements for PCC. PCC is said to improve the quality of patient care, cost minimizing of care, and increase satisfaction between providers and patients by strengthening and maintaining practice and values of both partners. For effective PCC, it is essential for health providers to get good knowledge, skills in data sharing, documentation and communication with other providers as well as patients. However, there are barriers to the delivery of PCC such as inadequate emphasis on PCC in education, absence of coordination and collaboration among health

professionals and a shortage in workforces. This implies that the implementation of PCC requires a planned and coordinated approach to overcome barriers and address needs (Pelzang, 2010).

In Canada, there are active efforts to involve patients as important members of collaborative care teams in order to reach the most comprehensive and effective way for addressing the health care needs of Canadians (Canadian medical association, 2007). In the same context, Cory Sevin (2009) ensured that providing PCC is abundant in identifying and recognizing the individual patient requirements.

When they talked about the values of PCC, Epstein and Street (2011) said: "*The originators of client centered and patient-centered health care were well aware of the moral implications of their work, which was based on deep respect for patients as unique living beings, and the obligation to care for them on their terms*". PCC is a quality of personal, professional, and organizational relationships. The dominant shape of physician-dependent healthcare should be changed by helping patients to be active participants of the healthcare team (Epstein & Street, 2011).

In 2014, a group of researchers developed some programmes to transfer PCC from ideas to action. In their book, they pointed to the focus of those programmes which depend on the source of patient support and empowerment, giving professionals the right skills to work in partnership and a well-processed system to reach the sustainable and successful aspect of collaborative care (Ahmad et al, 2014).

In an initiative aiming to improve the quality of care for people with chronic conditions, health foundation in the United Kingdom went beyond engaging patients in the healthcare team to supporting them to develop the knowledge, skills and confidence which are necessary for more effective management and making informed decisions about their own health and health care. Within the same context, the Welsh National Improvement Programme is supporting organizations and persons to provide the highest quality and safest health care for the people in Wales (Health foundaion, 2014).

2.2.1.2.4 Team Functioning

Concerning this core competency, health care professionals have to identify the characteristics of IPC which are the safe and valuable relationships among providers and respectful inclusion of patients. Health professionals should understand principles of work

dynamics and team processes. Collaborative relationships require trust, mutual respect, availability, openness and attentive listening (Canadian Interprofessional Health, 2010).

Brewer (2011) emphasized that collaborative healthcare providers should understand the principles of teamwork, its processes and importance in providing effective IPC to improve patient care. The collaborative healthcare provider is able to communicate with others within the team to ensure integrated care delivery (Brewer, 2011).

Complex situations may require careful planning, problem-solving and decision making through participation of professionals by sharing information needed to coordinate care with each other including patients to bridge gaps and address errors that impact both effectiveness and efficiency of care delivery. In some situations, it is necessary for the interprofessional team to understand the developmental dynamics and the influence of organizational complexity on collaborative practice. Unity of all professionals within the team is a result of commitment to interprofessional ethics and towards the common goal which is delivering the best care to patients. Unifying the efforts of the healthcare team members is fundamental to the ability for working together collaboratively (Canadian Interprofessional Health, 2010).

In their study, Borrill et al (2000) collected data from 400 health care teams in order to determine whether and how multidisciplinary team working contributes to quality, efficiency and innovation in health care in the National Health Service. This was one effort in the sequence of reports and documents that highlighted the importance of team working in health care. They began their study with some questions and using a model that related team inputs and team processes to health outcomes. They got a clear picture and firm answers for their questions. They found that inputs such as team composition and organizational factors have a strong influence upon effectiveness in healthcare teams. Team processes are directly related to team innovation and effectiveness. The quality of teamwork is positively related to the quality of patient care (Borrill et al, 2000).

Weldon and Weingart (1993) described the importance of planning in teams for achieving team goals and proposed five methods of supporting team work. Every dimension of performance should have its own goals that contribute to the overall effectiveness of the team. Those dimensions are: the feedback which expresses the team's progress towards its goal; the physical environment that should remove barriers of team dispersion to ensure effective interaction; encouraging team members to plan well for

identifying ones tasks and coordinating with others within the team to achieve the team goal; and assisting team members to manage failure, which can damage the subsequent effectiveness of the team (Weldon & Weingart, 1993).

2.2.1.2.5 Collaborative Leadership

Chan and wood pointed that the Canadian Interprofessional Health Collaborative (2010) has identified several core competencies necessary for IPC in their newly emerging national competency framework. One of these core competencies is the collaborative leadership (Chan & Wood, 2010).

In this core competency, it is essential for health professionals to understand leadership principles and to apply them according to the need for supporting a collaborative practice. Leadership is not hierarchical but instead it is shared among healthcare providers (Pecukonis & Bliss, 2008). Application of collaborative leadership gives the professionals the ability to choose the leader of the team according to the situation in order to provide opportunities to be mentored in the leadership role. Health professionals assume shared accountability for the processes chosen to achieve outcomes. In some situations, there may be two leaders; one is for provider-provider relationships to keep the flow of work and the other is for provider-patient relationships to serve the link with patients and their families (Canadian Interprofessional Health, 2010).

In two separate studies, researchers suggested that certain types of expertise are needed to construct the base for leadership among healthcare providers within the team at a specific time. Orientation on both task and relation is imperative as it is related to the leadership role. Nowadays, the leader helps members to work together more effectively not as before when the leader used to assist other members to keep on task for achieving common goals (Pecukonis & Bliss, 2008; Heinemann & Zeiss, 2002).

Regarding their study, Casimiro et al (2011) stated that the presence of a constant leader is a must for the team at the organizational level all the time. But at coordinating and communicating levels, participants indicated that it isn't helpful to point an individual to lead ahead of time. The person should be chosen by the health care team based on patient needs (Casimiro et al, 2011).

Despite the importance of leadership for patient safety, there are variations in leadership support from unit to unit which clearly made the difference in the integration of communication strategies into practice (Catherine, D. et al, 2009).

Team leaders have to identify the challenges and strengths of individual personalities and characteristics and have the ability to manage the issues of professional conflict (Hall, 2005). Team leaders formulate the competencies that offer the chance to create a safe environment for all healthcare professionals by understanding the culture and overcoming its sensitivity (Banfield & Lackie, 2009).

Leaders are persons who can engage other members in the team with the agreed vision and commitment. So, leadership is a key principle for individual teams as well as organizations as a whole to guide their movement towards interprofessional education and collaborative practice (Gilbert, J. H. et al, 2010; Nolte & Tremblay, 2005).

Collaborative leadership has several characteristics, including: encouraging shared working; supporting continuous self-development through learning environment; promoting positive relationships; fostering shared responsibility and accountability for decision making; and valuing diversity and inclusiveness by respecting individual differences (Kocolowski, 2010). Leaders can also enhance both identities by taking steps to provide a comfortable culture for members in working with other colleagues (Bartunek, 2011).

Weak leadership and confusion on the basis of autonomy and authority levels can have negative effects on abilities of team members to work together and produce wanted results. Leadership should reflect non-hierarchical relationships between the professionals with an equitable distribution of work (Orchard et al, 2009).

2.2.1.2.6 Interprofessional Conflict Resolution

In IPC, health professionals strive to react positively with other professionals and patients in order to address disagreements and manage conflicts as they arise. One of the essential advantages of IPC is that it offers healthcare professionals the ability to deal with differences and diverse events which may arise from positive and negative sources. “Conflict positive” is a term that may be used to interpret differences of opinion as healthy and to be encouraged as constructive interactions. Conflicts can arise from a number of

sources such as role confusion or overlap or differences related to goals as a result of dissimilar philosophies towards care (Canadian Interprofessional Health, 2010).

There are some factors that play a prominent role in establishing an effective working culture. These factors involve structured systems for information and processes, strategies for effective communication and policies for conflict management (Gilbert, J. H. et al, 2010).

Due to its importance, Pecukonis and Bliss highlighted the professional culture which defines the means for distributing power within the work environment, how training should proceed within the clinical setting, the level and nature of inter-profession communication, resolution of conflicts and management of relationships between team members and constituents (Pecukonis & Bliss, 2008).

In order to support IPC and avoid conflict occurrence, time, space and infrastructure development should be suitable for team collaboration, technological systems have to be changed to fit data sharing across health care teams and specific protocols and procedures need to be institutionally cultivated (Gilbert, J. H. et al, 2010).

Additionally, conflict arises due to three reasons, including a general disagreement of professional knowledge, absence of respectful recognition of each profession, and differences in personality traits among health care providers. Some health care professionals expressed the need for a more hierarchical form of conflict resolution (Loy et al., 2015). According to Canadian Interprofessional Health, power of hierarchical form of management with the teams may act as a source of conflict (Canadian Interprofessional Health, 2010). Also, conflict within interprofessional healthcare teams may arise when health care providers don't pay attention to the conceptual basis for the practice of other professions, weak communication among professionals and lack of trust and confidence in other disciplines (Orchard et al, 2009).

In North California, there was a qualitative study which examined the IPC between registered nurses and occupational therapists in acute care settings. Mitchell et al (2012) concluded that the communication aspects need to be reexamined due to the triggering alarms of tension and silent conflict among team members.

Conflict resolution is critical for enhancing the IPC. Professionals need to develop a set of agreements to enable effective management of such situations. Agreements are needed to stimulate a commitment for constructive contraposition, honest intention to

address and resolve conflicts, and a commitment to self-evaluation and management of behaviors. Health care providers need to share responsibility for identifying when and how disagreements occur and try to apply the principles for alleviating such resultant tension to achieve an acceptable outcome (Canadian Interprofessional Health, 2010).

2.2.1.3 Enablers (Capabilities) of IPC

To achieve the shared goals that are mutually designed and developed, teams have to work together with high compatibility and with the priorities and values of each team member (Hall, 2005).

In addition to core competencies, there are capabilities or enablers that are required to accomplish the desired positive health outcomes of comprehensive IPC. In the United Kingdom, the Combined Universities Interprofessional Learning Unit has replaced interprofessional competencies with capabilities due to their characteristics as they are dynamic to fit the contextual changes of an environment surrounding IPC. So, that Unit has adopted a focus on those interprofessional capabilities for working in health care teams (Suter, E. et al, 2009).

Regarding literature review, many studies, reports and initiatives have explained suggested frameworks of capabilities as enablers of IPC. In our study, we will browse some main capabilities according to their direct contact to the IPC improvement and necessity to teamwork.

2.2.1.3.1 System Factors

Policies or system factors address the situation of the healthcare context and its current conditions that enable models of IPC to be established and effectively implemented. The lack of such factors results in challenges in the optimal use of the full scope of health professionals. These factors include legislation, regulation, funding support, data availability, research and educational curricula (Virani et al, 2012). Policies in almost all funding models generate tensions between policy controls and practice efficiencies which can be alleviated by decentralizing of management to improve interprofessional communication and localization of budgets to improve interprofessional care (Daly, 2004).

System and policies are also responsible for assuring professional safety. Issues related to professional safety such as professional responsibility and accountability must be addressed in legislation and liability coverage (Haire, 2010).

2.2.1.3.2 The appropriate Model

The appropriate model of care is highly dependent on the context of healthcare. Community needs assessment may play a role in model success by reflecting community needs, characteristics and priorities identified by community stakeholders. It is necessary for these models to be flexible enough to respond to the divergent needs of the community and their changing nature that requires mechanisms to provide a varying intensity of programs and services. The availability of appropriate health provider, enough resources and supporting work to full scope of practice are the leading forces of the suitable model. Local adaptation of care models, therefore, produces modified models of specific characteristics and have their own challenges and successes (Virani et al, 2012).

Beside workforces, the physical setting for IPC plays an important role in the quality of care provided by interprofessional teams. The clinical case of the patient, privacy and quiet area are essential in order to provide quality, compassionate and PCC (CHSRF, 2007).

2.2.1.3.3 Interprofessional Education

The presence of education system and training programs as a foundation is basic for developing and preparing future health professionals to work within the interprofessional environment (Haire, 2010).

Interprofessional Education (IPE) seeks to engage students from various disciplines to learn together and to know from and about each other. Through this IPE, which is explicit, interactive, and relevant to their future practice, students can learn and build up new knowledge and abilities respectively. Also, they will develop the needed skills for interpersonal relationships to work effectively with others. In addition, significant experience can be gained in settings in which team and group members share common goals. There is something else that is crucial to IPC which is the team spirit that enables trained healthcare professionals to maximize the performance and output of the group as a priority (Chan & Wood, 2010).

So, health education institutes have to develop interprofessional preregistration programmes to prepare future health providers of different disciplines to engage in interprofessional working practices when they are newly qualified professionals (Daly, 2004). As the new collaborative interprofessional team members will be more likely to respect others and show positive attitudes towards each other and work to achieve the common objectives related to improving patient outcomes (Interprofessional Education (IPE) and Chiropractic, 2008).

Gilbert et al (2010) highlighted the key principles that can guide the movement towards IPE and IPC. They include relevance of the context, policy integration, change in several levels of the system and collaborative leadership. IPE hasn't only benefited health care providers but also contributes to raising public awareness and serving to change people's thinking (Haire, 2010).

2.2.1.3.4 Ethical Practice

Within a study in 2009, Suter et al explains ethical practice as involving respect for other cultures, appreciation to values and beliefs of team members, participation of the patient as the corner stone of treatment plan and paying attention to legal boundaries and ethical considerations of work.

Beliefs, attitudes and behaviors associated with IPC cannot be translated into facts unless they are promoted and supported by political will, top management resourcing, health professional participation and community expectations and ensuring involvement of patients and their families (Haire, 2010).

The Canadian Physiotherapy Association supports the principles of shared values, such as patient engagement, access, trust, respect and communication, for effective IPC (Canadian Nurses Association, 2011).

Clark et al (2007) developed a concept for organizing and analyzing a matrix that maps the elements of principles, structures, and processes against individual, team, and organizational levels as different types in IPC through a case study. Finally, the conclusion was a set of recommendations to begin with a dialogue and discussion on the ethical issues confronting interprofessional collaborative teams and to build the foundation for more promotion and awareness to become practice rather than theory.

2.2.1.3.5 Knowledge in Practice

It is the translation of theoretical knowledge into practice for creating a status of integration between legal issues and the structures and team processes (Suter et al, 2012). Team working processes, such as participation, reflection, communication, decision-making and leadership contribute to the effectiveness of teams, particularly the quality of health care and the development of creative practice. The literature on team structure and processes which affect team output is briefly reviewed with particular concentration on communication, decision-making and problem-solving. In Spain, a study conducted by Borrill et al (2000) showed relationships between work team processes, role clarity, job satisfaction and leader behaviors.

2.2.1.3.6 Interprofessional Working

This means that the integrated assessment plan should be warranted to the interprofessional team to give a whole depiction as a result of a current situation of each element. To enhance verbal communication and enforce collaboration among team professionals, regular interprofessional team meetings have to be performed on regular basis to allow the positive influence to occur (Daly, 2004). Communication is crucial for successful interprofessional teamwork as it opens the channels among team members to share knowledge away from the boundaries of each profession, exchange information and build positive relationships that have a clear impact in team outcomes. Mentoring is useful for work when a group of various knowledge and experience work together and show a case of advising, counseling, supporting and feedback to accomplish the shared aims (Suter et al, 2009). In order to identify successes and issues that need to be adjusted, designing and evaluating systems for both the processes and outcomes will take root for the way to sustainable improvement of IPC (Haire, 2010).

Emphasis on quality is centrally related to interprofessional working as Institute Of Medicine and other experts believe that health care provided by interprofessional teams can improve quality of care. Teams may solve problems more effectively than individual providers and provide more oversight to reduce medical errors that can harm patients (Johnson Foundation, 2011).

2.2.1.3.7 Reflection

Reflection as a capability for improving IPC includes feedback, problem solving, lifelong learning and reciprocal supervision. Feedback is useful in reviewing practices to enhance positive behavior and overcome negative ones. Problem solving is a healthy practice for avoiding clashes which may adverse the teamwork if they are recurrent in many forms. Sustainable learning has to be an attribute of team members to have the continuous ability to adapt with changes and dynamic nature of work environment. Mutual supervision also helps to share responsibility about the work and keep each other on the right track to reach the team goals that are identified by team members (Suter et al, 2009). Sharing responsibility, development of an accountability framework and the innovation of a central resource for knowledge transfer will widen the scope of input and maintain standards of practice (Haire, 2010).

2.2.1.4 Barriers (Challenges) of IPC

They are factors that act as barriers to the IPC or limit the full optimization of the interprofessional teams. In each work context, some challenges arise to impede the progress towards the agreed goals of the team members. After reviewing the literature, challenges will be explained in three levels. These levels are: individual, practice and system-level barriers.

2.2.1.4.1 Individual-level Barriers

They include lack of role clarity and trust, and hierarchical roles and relationships (Conference Board of Canada, 2012).

Role clarity and trust are closely related to the development and optimization of IPC especially within teams of different professional backgrounds (Gotlib et al, 2010).

Limited knowledge and difficulties in understanding the knowledge and skills of other team members represent the main barriers that inhibit role clarity and result in distrust (Canadian Nurses Association, 2007).

Often, however, relationships among the groups are not so positive. Bartunek (2010) studied the aspects of collaboration among physicians, nurses and administrators and found that physicians do not always trust healthcare administrators to understand them

or appreciate their legitimate needs. The higher status of physicians makes them less aware about the problems that nurses experience in the relationships.

When care is shared, absence of role clarity creates confusion within the team and may cause usual conflict among professionals as well as sub-optimal care for patients (Conference Board of Canada, 2012).

Regarding hierarchy, team effectiveness and collaboration can be adversely influenced when team members perceive a professional hierarchical order of importance or power. This hierarchical relationship continued to impact how team members perceived each other and their role within the team (Canadian Nurses Association, 2007).

The historical hierarchical organizational structure may result in significant power distances between physicians and other health care professionals. This frequently leads to a negative work culture and tension in communication, rather than a sense of open and comfortable communication (Dingley, C. et al, 2009).

Nevertheless, factors that maintain hierarchy, such as language and decision-making processes, could be changed in order to limit their potential negative impact on IPC (Conference Board of Canada, 2012).

2.2.1.4.2 Practice-level Barriers

Barriers in this level include lack of strong governance and leadership; difficulties in establishing appropriate skill mix and team size; and inadequate tools for communication (e.g., physical space, time, technology) (Conference Board of Canada, 2012).

Governance involves structures, policies, and procedures that ensure an organization's value to persons who fund it and who will receive quality care from this organization. Unless there is no ability to manage these complex practices by a strong governance and wise leadership, they will form a significant barrier to optimizing the IPC teams (Willcox et al, 2011).

According to Bateman et al (2003), the complex care team practices require continuous and effective support to help management and health providers addressing the expected difficulties that the team will face.

Leadership is one of the core competencies of IPC and health professionals who have a leading role are main facilitators of IPC. Hence, the lack of leadership in enhancing

and managing collaboration and team processes can be a significant barrier (Howard et al, 2012).

Hall (2005) stated that establishing skill mix faces some challenges. These challenges are due to the educational process in which the professional culture is taught as unique, central and superior context. Professionals may promote their expertise and knowledge regarding distinct bodies of knowledge, skill and work to protect these proficiencies as exclusive to their profession (Borst, 2011).

Based on team size, there is a gap in knowledge regarding the optimal size of the IPC team. When the team size is small, this may result in reducing accessibility, sustainability, and quality of care, thus shifting the burden from the settings of smaller team sizes to other parts of the health care system (Muldoon et al, 2012). On the other hand, larger team sizes is not necessarily better as too many team members may limit effectiveness (Cohen & Bailey, 1997).

However, several context-related factors influence appropriate team size. These factors include patient population, place of healthcare provision, availability of specialty practice and other health resources, and objectives of healthcare practice at this place (Muldoon et al, 2012).

When we are talking about insufficient communication tools, lack of suitable physical space has been reported as a barrier to collaboration in IPC teams. In their study, Oandasan et al (2009) found that although physicians, nurses, and administrative staff worked in a contact physical space, some of the interprofessional staff (social workers, occupational therapists, physiotherapists, pharmacists, etc.) worked at a distance from one another. This distance in physical space impeded communication and then collaboration among interprofessional team members.

The study showed another observation within interprofessional teams. Patient care schedules result in time pressures which make communication among healthcare providers extremely difficult. The general form of communication becomes informal, unstructured and unplanned (Oandasan et al, 2009).

Regarding information and communication technology, communication is further challenged when there is misuse of information and communication technologies or when they are not optimized in a practice. Technological means can enhance communication among healthcare professionals as well as patients when they are used appropriately. These

means include electronic medical records, computerized messaging systems, etc. Information and communication technologies are keys not only to improve monitoring of patients and ensuring appropriate care, but also to prevent duplication of tasks among healthcare team members (Molyneux, 2001).

2.2.1.4.3 System-level Barriers

This type of barriers include inadequate IPE and training, suboptimal funding models, and lack of appropriate monitoring and evaluation (Conference Board of Canada, 2012).

Doubtless the IPE and training programmes are important in effective IPC among healthcare providers. According to Drummond and others (2012), "*the primary goal of IPE and training is to help students become collaborative professionals in an effective fashion*". They examined the status and processes of interprofessional work environments and implications for IPE and noted the importance of lifelong training and sustainable education and learning in order to improve future collaboration in the health care work facilities (Drummond et al, 2012).

Suitable payment for interprofessional members within collaborative teams play a significant role as an incentive for them in order to promote greater team effectiveness and better health outcomes for patients. So, the lack of satisfying payment for healthcare providers is considered a challenge for IPC teams which reflects negatively on the optimization of individual practice (Conference Board of Canada, 2012). The current situation here in Gaza is different. There is a real problematic challenge resulting from lacking financial support for basic salaries. So, it is too early to talk about extra incentives.

Lack of monitoring and evaluation systems, shortage in collecting data, reporting and useful performance will lead to a threatening challenge which harms the performance of interprofessional teams. As a result of limited monitoring and evaluation, the overall authentic depiction about health situation will be unclear and the comparison between past and current situations will be very difficult whereas clear conception is necessary to inform policy makers about changes required for improving health performance. These findings are so close to those conclusions drawn in the systematic review by Tieman and others (Tieman et al, 2007).

Concerning its importance, development and consistent implementation of evaluation processes for current IPC team models are needed to assess team functioning and its direct impact in health and economic outcomes. Without evidence of effectiveness

and efficiency, it is difficult to assess the relationship between benefits of IPC and the costs needed to measure the productivity and health improvement via its outcomes (Ludwick & Doucette, 2009).

Universally, chapter two has drawn the theoretical framework of the study in order to build the base for effective comparison between the current results with those of aforementioned studies in the literature. The researcher proposed IPC benefits and its core competencies in addition to the impact of socio-demographic variables on it as well as its main domains. Furthermore, enablers of IPC and barriers to it have been shown. The next step is how to get the results of this study to be compared with aforementioned studies.

Chapter 3

Methodology

The chapter of methodology aims at introducing a full description of data collection and the instruments used for that purpose either in quantitative or qualitative methods. In addition, this chapter will address study features, data collection, sample size, instruments, ethical considerations and study difficulties.

3.1 Study Design

Basically, the choice of a research method depends upon the topic area, study background, the research questions and the intended audience (Baroud, 2010). This study is descriptive, analytical and cross sectional. It is a mixed-method study in which triangulation is used as a strategy for combining quantitative and qualitative methods of data collection in order to combine the advantages of both approaches. Triangulation plays an important role in increasing the validity of evaluation and research findings. Also, it aims at deepening and widening one's understanding, and tends to support interdisciplinary research sociology (Yeasmin & Rahman, 2012). The cross sectional studies provide a 'snapshot' description of the outcome and the characteristics associated to it, at a specific point in time or over a short period of time (Levin, 2006). The quantitative method contributes in describing and assessing the current collaborative care practice among healthcare providers that helps the investigator to identify its weaknesses and strengths. The in-depth interviews with key informants and focus groups of various healthcare professionals are helpful in understanding and interpreting the real causes of the problem deeply which will lead to enrich the study results.

3.2 Study Setting

The study was conducted on six governmental hospitals that are distributed overall the five GGs. These hospitals selected to cover various types that are relevant to the setting size. Likewise, there were four general hospitals; Kamal Adwan, Al-Shifaa, Al-Aqsa and European Gaza hospitals and two specialized; Al-Rantisy and Al-Hilal hospitals.

3.3 Study period

This study was initially proposed in 2015. It was established after getting the university approval of the study proposal and obtaining the ethical approval from Helsinki Committee in August 2015. Selecting the study instruments which was a questionnaire depending on a valid and reliable collaborative assessment tool. Translation of the tool into its Arabic version was in September 2015 by asking a peer and then reviewed by the academic supervisor in order to ensure its easiness and appropriateness to participants and the context respectively. Data collection, entry, cleaning and analysis of quantitative data were performed at the end of 2015. The researcher carried out data collection himself to ensure careful responding and accuracy. Qualitative data collection was conducted in January 2016 parallel to quantitative data entry and analysis in order to make use of data in revealing the fact beyond quantitative results. The drafts of the thesis have been reviewed and enriched by research supervisor frequently. The final draft of the study was completed and handled on April, 17th 2016.

3.4 Study Population

Concerning the quantitative part, the data was gathered from healthcare providers of certain professions (physicians, nurses, pharmacists, laboratory technicians, radiology technicians and physiotherapists) who participate in delivering healthcare services for patients at governmental hospitals in GGs.

Regarding qualitative part, data was collected from key informants through in-depth interviews and with other healthcare providers through focus group discussions.

3.4.1 Sample size

For the quantitative part; the sample was proportionally stratified and its size was calculated according to the total number of eligible healthcare providers distributed within the six hospitals that were selected as study setting. The researcher sample size calculator was used to identify the number of study participants. The required sample was estimated to be 337 or more. The researcher increased the sample size up till 355. The following parameters were considered to calculate the sample (**Annex 3**):

- Confidence level was 95%.
- Confidence interval was 5%.
- Total eligible participants (2705).

The total number of healthcare providers (N) and the redistribution of these numbers among the selected hospitals were conducted from the annual report of workforces at governmental hospitals in 2014. The percentages of selected professions (%) were calculated and the numbers of healthcare providers within the sample (n) were as shown in table (3.1). The total number of health care providers was (2705) and then the sample of participants regarding the percentages was (355).

Table (3.1): The total number of study population, percentages and required sample of healthcare providers within the study settings

Hospital		Physicians	Nurses	Lab. Technicians	Radiology technicians	Physio-therapists	Pharmacists
Al-Shifaa	N	471	625	67	42	31	37
	%	17.41	23.1	2.5	1.6	1.15	1.37
	n	62	80	9	5	4	5
EGH	N	174	266	34	23	14	16
	%	6.43	9.65	1.3	0.85	0.52	0.6
	n	23	34	5	3	2	3
Al-Aqsa	N	117	176	28	14	4	11
	%	4.33	6.5	1.11	0.52	0.15	0.411
	n	15	23	4	2	1	2
K.Adwan	N	92	118	19	15	4	9
	%	3.34	4.4	0.7	0.55	0.15	0.33
	n	13	15	2	2	1	1
Al-Rantisy	N	32	82	16	10	6	9
	%	1.12	3	0.6	0.37	0.22	0.33
	n	5	11	2	1	0	1
Al-Hilal	N	35	84	11	7	0	6
	%	1.11	3	0.4	0.26	0	0.22
	n	5	11	1	1	0	1

3.5 Eligibility criteria

For the quantitative part; random selection was dependent for identifying the study participants of various variable in order to get a representative sample.

3.5.1 Inclusion criteria

1. Willingness to participate.
2. Healthcare providers of selected professions.
3. Healthcare providers from the six hospitals.
4. Healthcare providers who have experience more than one year.

3.5.2 Exclusion criteria

1. Healthcare providers of other than selected professions.
2. Healthcare providers from other than the six hospitals.
3. New healthcare providers with an experience less than one year.
4. Healthcare providers who haven't enough information about the study issue.
5. Volunteers or under training programmes.

For the qualitative part; 30 participants were purposively selected and called on voluntary basis to participate in three focus groups and seven interviews. Focus groups participants were selected in a way that ensures they represent all targeted professions from different economic and cultural backgrounds. Interviewees were key informants; hospital directors, nursing, administrative, pharmacy managers and a doctor from children care unit. They were selected on the basis of the following criteria:

3.5.3 Inclusion criteria

1. Willingness to participate.
2. Having enough time and ability for effective participation.
3. Healthcare providers who have sufficient information about the issue.
4. Healthcare providers who are interesting about the topic.

3.5.4 Exclusion criteria

1. Healthcare providers who aren't willing to participate.
2. Time constraints or inability to discuss the issue.
3. Healthcare providers who haven't enough information or uninterested about the topic.

3.6 Instruments of the study

3.6.1 Quantitative instruments

Self-administered questionnaire (**Annex 4**) was used to collect the quantitative data from healthcare professionals who provide health services to patients within the six hospitals. This questionnaire was taken from the collaborative practice assessment tool (CPAT) which was developed from the literature to enable interprofessional teams to assess their collaborative practice. It is a Likert scale which has been translated into Arabic (**Annex 5**) without any relevant modifications either to domain or items. In addition to the socio-

demographic characteristics, the questionnaire includes 56 items across eight domains including: mission and goals; general relationships; team leadership; role responsibilities and autonomy; communication; decision-making and conflict management; community linkages and coordination; and patient involvement. The tool was developed for use in a variety of settings involving a diversity of healthcare providers with the aim of helping teams to identify professional development needs and corresponding educational interventions.

3.6.2 Qualitative instruments

1. In-depth interview

For the qualitative part, seven semi-structured in-depth schedules (**Annex 6**) consisted of nine questions were designed with the key informants of healthcare providing departments based on the initial findings of the quantitative data. The qualitative approach is used to gather, deepen, and widen the understanding of quantitative data. Guiding questions were developed to have answers about different issues and domains of the current collaborative care practices.

2. Focus groups

Three semi-structured focus groups were conducted within three targeted hospitals; Al-Aqsa, Kamal Adwan and EG hospitals. There were big managerial problems within the other three hospitals that impeded focus groups discussions there. 6-8 participants from various targeted professions were involved in each focus group. Approximately, one hour was the available time for each focus group in order to explore and emphasize the required questions to be deeply discussed for getting useful results (**Annex 6**).

3.7 Scientific rigor and Trustworthiness

3.7.1 Quantitative method

Reliability, face validity, content validity, and the pilot study were done for the quantitative approach. As stated before, two pilot tests were conducted on the original tool and their results indicated that the CPAT is a valid, face and content, and reliable tool for assessing levels of collaborative practice within teams. The internal consistency was checked for the domains of the questionnaire. Each domain was individually assessed using Cronbach's α,

the statistically standard technique for assessing the coherence of each item within each domain.

Table (3.2): The breakdown of Cronbach's α of the original instrument

Domain	No. of items	Alpha coefficient
Mission, meaningful purpose, goals	8	0.88
General relationships	8	0.89
Team leadership	9	0.80
General role responsibilities, autonomy	10	0.81
Communication and information exchange	6	0.84
Community linkages and coordination of care	4	0.76
Decision-making and conflict management	6	0.67
Patient involvement	5	0.87
Overall	**56**	**0.815**

3.7.1.1 Pilot study

A pilot study is conducted before establishing actual data collection (pre-test of instrument); it is conducted to show the clarity, ambiguity and length of questions. Also, pilot study tests reliability of the instruments. Reliability is concerned with how consistently the measurement technique measures the concept of interest. A measure is considered reliable if it gives the same results each time (Polit, 2004). The researcher conducted the pilot study on 50 subjects as a portion of the whole sample, selected randomly and this was parallel to data collection. The results are presented below.

Validity

a. Content validity

For the purpose of judging content validity, the researcher used an international questionnaire for face and judged content validity. The translation into Arabic was under the supervision of supervisor and through peer review and the suggestions were considered.

b. Internal consistency

To check internal consistency of the Arabic version, the researcher calculated the correlation between each dimension and the total score of the scale. The results are illustrated below.

Reliability

a. Split half

The researcher calculated the correlation coefficient between the total scores of odd statements and the total score of even statements, the correlation value was (R = 0.716), then the researcher used equal length Spearman-Brown equation, the correlation value was (R = 0.834).

b. Cronbach's alpha

The researcher used Cronbache alpha coefficient to find the reliability for each dimension and the total score of the scale. The results are shown in table (3.2).

Table (3.3): Cronbach's α coefficient of the study pilot sample

Dimension	No. of items	Alpha coefficient
Mission, meaningful purpose, goals	8	0.797
General relationships	8	0.706
Team leadership	9	0.652
General role responsibilities, autonomy	10	0.786
Communication and information exchange	6	0.800
Community linkages and coordination of care	4	0.835
Decision-making and conflict management	6	0.614
Patient involvement	5	0.874
Overall	56	0.883

3.7.2 Qualitative method

Trustworthiness, in qualitative approaches, is the parallel concept to validity and reliability which are used quantitatively. It includes four aspects; credibility, transferability,

dependability and conformability. To ensure trustworthiness of qualitative data, the researcher implemented the following steps:

1. Interviewing large sample
2. Standardization of tools
3. Using internationally recognized tools
4. Standardization of implementation
5. Daily checking and verifications
6. Re-entry of 5% of data
7. Peer and members check

3.8 Data collection

Initially, data collection is a series of interrelated activities aimed at gathering good information to answer research questions. Two sources of data, quantitative and qualitative, were considered for this study in an effort to validate the findings (Baroud, 2010).

3.8.1 Quantitative data collection

The researcher himself collected the required data after a training trial with a sample of healthcare providers. The stage of data collection started in October 2015 up till January 2016. All participants were selected using a simple random technique. Participants had informed about relevant concerns of the study. In addition, they have been told that their participation is optional and they have to feel free about not answering any question. After the verbal consent, the participant was given a questionnaire and enough time to fill it out. Occasionally, the needed time for filling in the questionnaire was from 15-20 minutes. After collecting ready questionnaires, the researcher was careful in ensuring completeness and thanking the respondents for their participation.

3.8.2 Qualitative data collection

Regarding the qualitative method, data collection by this method was in January 2016 up till the end of February 2016 after getting the initial quantitative results. In-depth interviews were given 40-50 minutes as an available time. One interview was conducted in each hospital and two were at Al-Shifaa medical complex. At the same time, focus groups

were given one hour approximately for useful and enriched discussions. The focus groups were conducted at Al-Aqsa, Al-Hilal and EGH respectively.

3.9 Response rate

In order to improve the strength of the study, 370 questionnaires had been distributed and 355 were collected. Of 355, 340 only were consistent with the eligibility criteria. This means that the response rate was 95.7%. For in-depth interviews and focus groups, the response rate for the seven interviews and the three focus groups was 100%.

3.10 Data analysis

With regard to the quantitative data, Statistical Package for Social Science (SPSS) version 20 was used for data analysis. The researcher has developed database for easy data entry including five responses for Likert scale items as; strongly disagree=1, disagree=2, neither agree nor disagree=3, agree=4 and strongly agree=5. Data analysis also including coding of other variables to enhance data entry. Then, data cleaning was performed through checking the frequencies of all variables and looking for illogical values. Data recoding and computation have been performed to convert negatively phrased items when the means were calculated. The researcher conducted frequency distribution, cross tabulation, general scores, standard deviations and the mean percentages. Generally, a Likert scale is composed of a series of four or more Likert-type items that are combined into a single composite score/variable during the data analysis process. Combined, the items are used to provide a quantitative measure of a character or personality trait. Typically the researcher is only interested in the composite score that represents the character/personality trait. So, Likert scale data are analyzed at the interval measurement scale. Descriptive statistics recommended for interval scale items include the mean for central tendency and standard deviations for variability in order to detect the differences and assess the significant relationships among different types of variables (Boone & Boone, 2012). The researcher used inferential analysis to test the statistical significance of differences. An independent t-test was used to compare the collaboration mean scores of the independent variable with two categories such as gender and type of department. One way Analysis of Variance (ANOVA) test was used to compare the collaboration domains mean scores of the independent variable with more than two options such as hospitals. The statistically significant difference was considered when the P value equals or below 0.05. In addition, the Assessment Scale for Collaboratives (CAS) (**Annex 7**) was used. This

scale was developed by the institute for health care improvement in Boston, Massachusetts, USA (2004) for more understanding of quantitative results by assessment of current status and description the future steps.

Regarding qualitative data, debriefing reports of the interviews and focus groups discussions were done immediately after the end of each of them. Also, objective considerations of non-prompted intimations, group dynamics and non-verbal cues were noted and considered. Relevant qualitative data and reflections on initial results extracted, compiled and regrouped using the coding thematic technique. In addition, a cross-hospitals analysis was done as a useful qualitative analysis for further investigation in each hospital.

3.11 Ethical and managerial considerations

Ethical and managerial considerations are critical to be in mind before establishing any study or research. So, it was necessary to have the following:

- An official approval letter was obtained from the Helsinki Committee in GGs which allowed the researcher to begin his study (**Annex 8**).
- An official approval letter from the general directorate of human resource management and development to the general directorate of governmental hospitals (**Annex 9**).
- An official approval letter was obtained from the general directorate of MOH hospitals to the managers of targeted hospitals in order to facilitate the purpose of the researcher (**Annex 10**).
- Informed consent to health care providers was provided to ensure confidentiality and privacy of participants as well as asking them for verbal consent.

3.12 Study Limitations

The researcher faced the following inherent limitations:

1. The study is cross-sectional and then gives a snapshot for the current status of collaboration and hence reflects the perspectives of health providers at this temporary time.

2. The international tool expresses a certain context that may differ in some aspects but this had been addressed by qualitative results that contributed in contextualizing them to increase their credibility.
3. Bad experience of some health providers within the study sample which leads to negative responses.
4. Difficulties in coordinating the interviews and focus groups with participated health professionals according to their various work nature.
5. Problematic participation of physicians within the sample of the study because of their exceptional conditions of workload and time constraints.
6. The public problem of electricity blackouts which limits access hours to the internet as well as writing time.
7. Lack of enough funding to maintain comfortable environment for healthcare professionals in order to improve their participation.

Chapter 4

Findings and Discussion

This chapter presents the findings of statistical analysis of data. Description of demographic characteristics of study participants was illustrated and the results of different variables and dimensions were identified, moreover, the differences between selected variables and correlations were explored and discussed as illustrated below.

4.1 Findings

Descriptive statistics were used to analyze key features of the study sample of healthcare providers, considering socio-demographic characteristics and providers' perspectives about IPC through the scores of 5-pointed Likert scale items within the distributed questionnaire.

4.1.1 Socio-demographic characteristics

Table (4.1a) and table (4.1b) show the results of the descriptive statistics of the study sample considering the socio-demographic characteristics.

Table (4.1a): Socio-demographic characteristics of study participants

Variable	Category	Frequency	Percent
Gender	Male	201	59.12
	Female	139	40.88
	Total	340	100.0
Age (years)	21 – 30	131	38.5
	31 – 40	109	32
	41 – 50	77	22.6
	51 – 60	23	6.9
	Total	340	100.0
Marital status	Single	61	17.9
	Married	271	79.7
	Others (Divorced / widow)	8	2.4
	Total	340	100.0
Education level	Diploma	51	15
	Bachelor	198	58.2
	Postgraduate	91	26.8
	Total	340	100.0

The final sample consisted of **340** healthcare providers (95.7% response rate). 59.12% of participants were male. The average respondents age was 21-60 years. 38.5% were in between 21-30, 32% were 31-40 and 22.6% were 41-50 years old. 79.7% of the providers were married, 17.9% were single and the others were widowed or divorced. Regarding their education level, 58% of healthcare providers have held bachelors degree while 26.8% were postgraduates and the others have held diploma.

Table (4.1b): work-related characteristics of study participants

Variable	Category	Frequency	Percent
Specialty	Physician	104	30.6
	Nurse	177	52.1
	Laboratory technician	19	5.6
	Radiology technician	13	3.8
	Physiotherapist	11	3.2
	Pharmacist	16	4.7
	Total	340	100.0
Work place	Kamal Adwan	37	10.9
	Al-Shifaa	137	40.3
	Al-Rantisy	24	7
	Al-Aqsa	47	13.8
	EGH	76	22.4
	Al-Hilal	19	5.6
	Total	340	100.0
Type of department	Closed	52	15.3
	Open	288	84.7
	Total	340	100.0
Experience years	1 – 5 years	119	35
	6 – 10 years	88	25.9
	11 – 15 years	79	23.2
	16 years and more	54	15.9
	Total	340	100.0
Post/position	Regular employee	218	64.1
	Specialist	50	14.7
	Consultant	8	2.4
	Administrative post (head of department , director)	64	18.8
	Total	340	100.0

Concerning the specialty, 52.1% were nurses, 30.6% were physicians, 5.6% were laboratory technicians, 4.7% were pharmacists, 3.8% were radiology technicians and 3.2%

were physiotherapists. Most of providers were working at Al-Shifaa (40.2%), while 22.4% were at EGH, 13.8% were working at Al-Aqsa, 10.9% at Kamal Adwan, 7% at Al-Rantisy and 5.6% were working at Al-Hilal hospital.

There were 84.7% of participants working in open departments such as internal, surgical…etc, while 15.3% were working in closed departments such as intensive care units, surgical operational departments. 35% of study sample had 1-5 years of experience, 25.9% had 6-10 years, 23.2% had 11-15 years and 15.9% had more 16 years of experience. 64.1% of health providers were regular employees while the others occupied various managerial positions.

4.2 Responses of participants on IPC's domains

The questionnaire used for collecting quantitative data is composed of eight domains and each domain includes a number of items that have to be clustered based on means and standard deviations to assess personality traits. This section described each domain and showed the responses of participants in relation to each item.

4.2.1 Mission, meaningful purpose, goals

As proposed in table 4.2, this domain consists of eight items that illustrate perspectives of health providers about the mission of the team, purposes of each healthcare provider and the common goals within team members and to which extent they could help healthcare providers to collaborate.

It is clear from Table (4.2) that most participants were agree with the items related to this domain. In item (3), although 63.2% of healthcare providers were agree and 15.8% were strongly agree with the clarity of their team's goals and appropriateness to their practice, but 16.7% neither agree nor disagree about that so the mean of this item was 3.891. Nevertheless, in item (2) the mean was the best in this domain (4.219). 61.3% and 32.2% were agree and strongly agree respectively with their primary purpose about assisting patients in achieving treatment goals and small percentage left was in between disagree or undecided. Interestingly, only 35.3% of healthcare providers believed in the sufficiency of resources of skills, funding, time and space. At the same time, 26.9% are undecided and 26.6% were disagree about that as the mean in item (4) was the worst (3.099).

Regarding the commitment of providers to collaborate in item (5), 46.4% of them were agree, 25.7% were undecided and 14.2% were disagree. In item (8), 59.4% of

providers were convinced that collaboration is a real desire among them, 13% were strongly agree and 17.6% were undecided.

Table (4.2): Participants' responses on domain (mission, meaningful purpose, goals)

No.	Statement	S. disagree	Disagree	Neutral	agree	S. agree	Mean	S.D.
1	Our team mission embodies an interprofessional collaborative approach to patient/client care.	11 (2.5)	13 (3.1)	30 (8.4)	210 (63.5)	76 (22.6)	4.006	0.811
2	Our team's primary purpose is to assist patients/clients in achieving treatment goals.	5 (0.6)	11 (2.5)	14 (3.4)	203 (61.3)	107 (32.2)	**4.219**	0.681
3	Our team's goals are clear, useful and appropriate to my practice.	7 (1.2)	13 (3.1)	57 (16.7)	209 (63.2)	54 (15.8)	3.891	0.741
4	Our team's mission and goals are supported by sufficient resources (skills, funding, time, space).	20 (5.3)	89 (26.6)	90 (26.9)	119 (35.3)	22 (5.9)	**3.099**	1.028
5	All team members are committed to collaborative practice.	12 (2.8)	49 (14.2)	86 (25.7)	155 (46.4)	38 (10.8)	3.483	0.959
6	Members of our team have a good understanding of patient/client care plans and treatment goals.	4 (0.3)	33 (9.3)	69 (20.4)	192 (57.9)	42 (12.1)	3.721	0.805
7	Patient/client care plans and treatment goals incorporate best practice guidelines from multiple professions.	11 (2.5)	30 (8.4)	77 (22.9)	180 (54.2)	42 (12.1)	3.650	0.887
8	There is a real desire among team members to work collaboratively.	11 (2.5)	27 (7.4)	60 (17.6)	197 (59.4)	45 (13.0)	3.730	0.869

Figure (4.1): comparison between means of the eight item within the domain of mission, meaningful purpose, goals

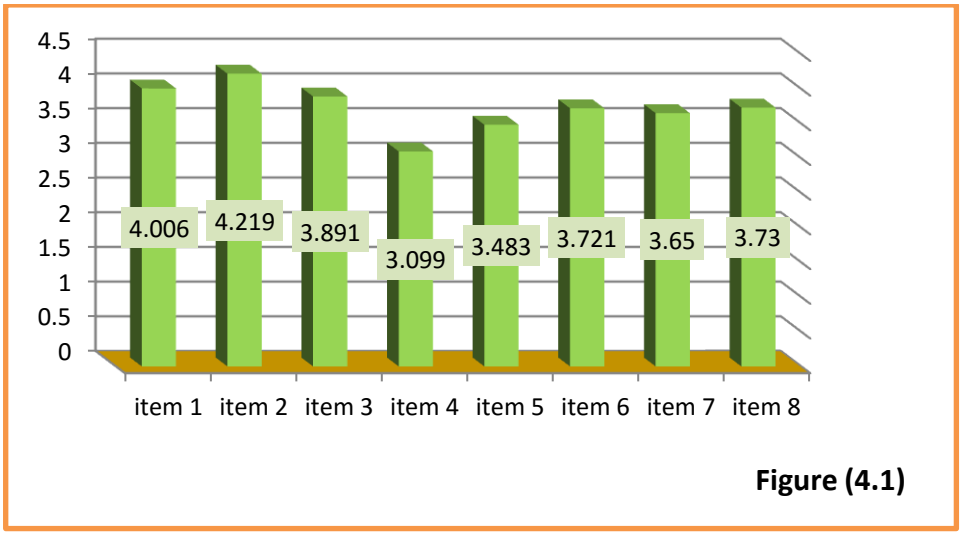


Figure (4.1)

4.2.2 General relationships

This domain consists of eight items which are relevant to the general relationships among healthcare providers. It involves; respect and trust among team members, care of each provider about wellbeing of others, socialization and the impact of collaboration on their performance as a team. Table (4.3) illustrates the reaction of healthcare professionals with these items as an expression of their general relationships.

Table (4.3): Participants' responses on domain (general relationships)

No.	Statement	S. disagree	Disagree	Neutral	agree	S. agree	Mean	S.D.
9	Respect among team members improves with our ability to work together.	8 (1.5)	9 (1.9)	18 (4.6)	198 (59.8)	107 (32.2)	4.192	0.739
10	Team members care about one another's personal wellbeing.	5 (0.6)	22 (5.9)	75 (22.3)	201 (60.7)	37 (10.5)	3.746	0.745
11	Socializing together enhances team work effectiveness.	6 (0.9)	7 (1.2)	31 (8.7)	210 (63.5)	86 (25.7)	4.117	0.681
12	It is enjoyable to work with other team members.	0	10 (1.9)	45 (12.7)	209 (63.2)	76 (22.3)	4.058	0.649
13	Team members respect each other's roles and expertise.	12 (2.8)	24 (6.5)	79 (23.5)	173 (52.0)	52 (15.2)	3.702	0.901
14	Working collaboratively keeps most team members enthusiastic and interested in their job.	5 (0.6)	10 (2.2)	43 (12.4)	221 (66.9)	61 (18.0)	3.993	0.668
15	Team members trust each other's work and contributions related to patient / client care.	9 (1.9)	22 (5.9)	84 (25.1)	189 (57.0)	36 (10.2)	3.678	0.808
16	Our team's level of respect for each other enhances our ability to work together.	8 (1.5)	7 (1.2)	35 (9.9)	212 (64.1)	78 (23.2)	4.061	0.719

As shown in Table (4.3), 59.8% of health professionals were agree and 32.2% were strongly agree with the positive effect of respect among them in improving team effectiveness. Congruently, 64.1% of participants and 23.2% were agree and strongly agree respectively with enhancing their ability to collaborate as a result of increase respect level. They also believed in socialization as they did with respect. So, the means of those both items elicited highest and second highest (4.192 and 4.117) respectively.

The responses of health professionals about trust and respect of others' roles and expertise were slightly different. 25% of participants in both items were undecided about mutual trust and expertise respect. As a result, the mean in item (15) was 3.678.

Figure (4.2): comparison between means of the eight items within the domain of general relationships

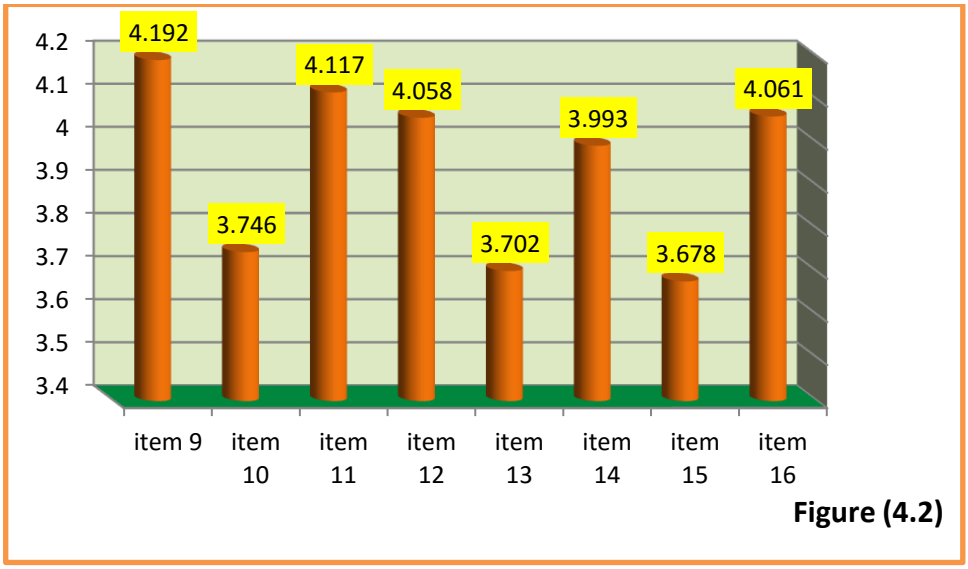


Figure (4.2)

4.2.3 Team leadership

Domain (3) includes nine items that illustrate leadership and the role of leaders of teams in encouraging members to collaborate, initiating their development and enhancing them to practice within their full scope. Also, the domain addresses the responsibility of the team leader in advocating patient-centredness as well as the rights of healthcare providers. Table (4.4) shows responses of participants in relation to each item.

With regard to item (20), 28.8% of professionals were agree with the adverse role of their team leaders as they discourage them to be initiative in patient support whereas 33.3% of study sample were undecided. In item (23), 25.1% of health professionals reported that leaders are out of touch with team members' concerns and perceptions, 29.1% were undecided and 27.6% were disagree with that. For both items 20 and 23, the mean were the lowest (2.925 and 2.82) respectively. On the other side, in item (18) showed the highest mean (3.95), 82% were a mix between agree and strongly agree with the efforts of team leadership in ensuring healthcare professional needing to have his role within the team.

Table (4.4): Participants' responses on domain (team leadership)

No.	Statement	S. disagree	Disagree	Neutral	agree	S. agree	Mean	S.D.
17	Procedures are in place to identify who will take the lead role in coordinating patient/client care.	12 (2.8)	20 (5.3)	74 (22.0)	203 (61.3)	31 (8.7)	3.678	0.816
18	Team leadership ensures all professionals needing to participate have a role on the team.	10 (2.2)	9 (1.9)	45 (13.0)	214 (64.7)	62 (18.3)	3.950	0.762
19	Team leadership assures that roles and responsibilities for patient/client care are clearly defined.	8 (1.5)	17 (4.3)	78 (23.2)	205 (61.9)	31 (9.0)	3.724	0.748
20	Team leadership discourages professionals from taking the initiative to support patient/client care goals.	29 (8.0)	88 (26.3)	112 (33.7)	98 (28.8)	13 (3.1)	**2.925**	0.997
21	Team leadership supports interprofessional development opportunities.	13 (3.1)	31 (8.7)	89 (26.6)	176 (52.9)	31 (8.7)	3.554	0.884
22	Our team leader models, demonstrates and advocates for patient/client-centered best practice.	14 (3.4)	32 (9.0)	84 (25.1)	175 (52.6)	35 (9.9)	3.566	0.911
23	Our team leader is out of touch with team members' concerns and perceptions.	45 (13.0)	92 (27.6)	97 (29.1)	86 (25.1)	20 (5.3)	**2.820**	1.108
24	Our team leader encourages members to practice within their full professional scope.	15 (3.7)	19 (5.0)	67 (19.8)	197 (59.4)	42 (12.1)	3.712	0.878
25	Our team has a process for peer review.	18 (4.6)	38 (10.8)	70 (20.7)	184 (55.4)	30 (8.4)	3.520	0.956

Figure (4.3): comparison between means of the nine items within the domain of team leadership

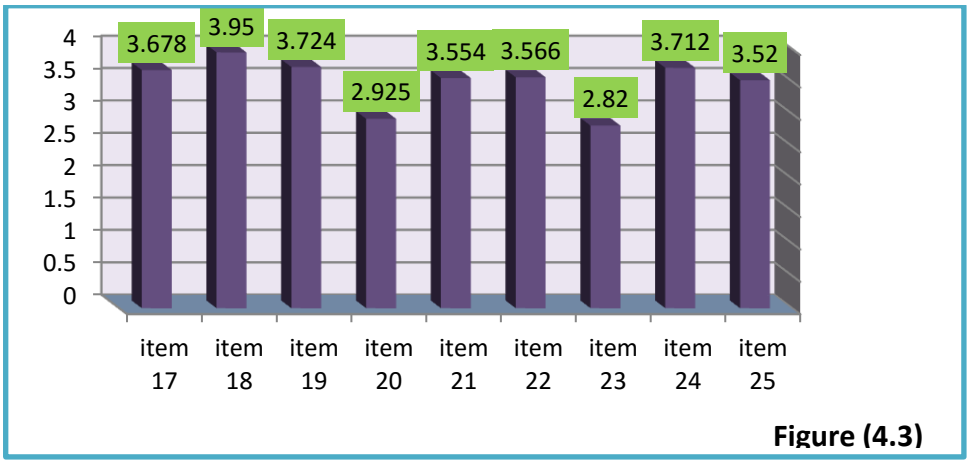


Figure (4.3)

4.2.4 General role, responsibilities and autonomy

This domain includes ten items addressing the roles and responsibilities of health providers within healthcare team especially physicians. The domain discusses the ultimate responsibility of physicians and the importance of other members opinions and the available autonomy for them within the team working. Table (4.5) shows the responses of health providers which are related to the statements within the domain.

Table (4.5): Participants' responses on domain (general role, responsibilities and autonomy)

No.	Statement	S. disagree	Disagree	Neutral	agree	S. agree	Mean	S.D.
26	Team members acknowledge the aspects of care where members of my profession have more skills and expertise.	7 (1.2)	13 (3.1)	58 (17.0)	227 (68.7)	35 (9.9)	3.829	0.690
27	Physicians assume the ultimate responsibility for team decisions and outcomes.	13 (3.1)	47 (13.6)	65 (19.2)	164 (49.2)	51 (14.9)	3.591	1.000
28	Team members negotiate the role they want to take in developing and implementing the patient/client care plan.	13 (3.1)	19 (5.0)	74 (22.0)	203 (61.3)	31 (8.7)	3.674	0.824
29	Team members are held accountable for their work.	11 (2.5)	21 (5.6)	73 (21.7)	190 (57.3)	47 (13.0)	3.727	0.848
30	It is clear who is responsible for aspects of the patient/client care plan.	16 (4.0)	31 (8.7)	88 (26.3)	182 (54.8)	23 (6.2)	3.504	0.889
31	Physicians usually ask other team members for opinions about patient/client care.	23 (6.2)	60 (17.6)	100 (30.0)	132 (39.3)	25 (6.8)	3.229	1.020
32	Team members feel comfortable advocating for the patient/client	10 (2.2)	14 (3.4)	67 (19.8)	194 (58.5)	55 (16.1)	3.829	0.814
33	Each team member shares accountability for team decisions and outcomes.	11 (2.5)	30 (8.4)	79 (23.5)	185 (55.7)	35 (9.9)	3.622	0.866
34	Team members have the responsibility to communicate and provide their expertise in an assertive manner.	14 (3.4)	40 (11.5)	97 (29.1)	157 (47.1)	32 (9.0)	3.467	0.929
35	Team members feel limited in the degree of autonomy in patient/client care that they can assume.	16 (4.0)	42 (12.1)	88 (26.3)	156 (46.7)	38 (10.8)	3.483	0.975

It was clear in item (26) that approximately 78% of health providers accepted that their acknowledgement about the aspects of care is sufficient (mean= 3.829). 49.2% of participants were agree and 14.9% were strongly agree with the assumption that physicians take the ultimate responsibility for decision making and outcomes but only 39.3% of healthcare providers agreed that physicians ask others about opinions (mean=3.229). Interestingly, 46.7% of participants felt limited in the degree of autonomy although 47.1% of them were able to have the responsibility to communicate and provide their expertise in an assertive manner. Figure (4.4) shows comparative bars of the means of this domain.

Figure (4.4): comparison between means of the ten items within general role, responsibilities and autonomy

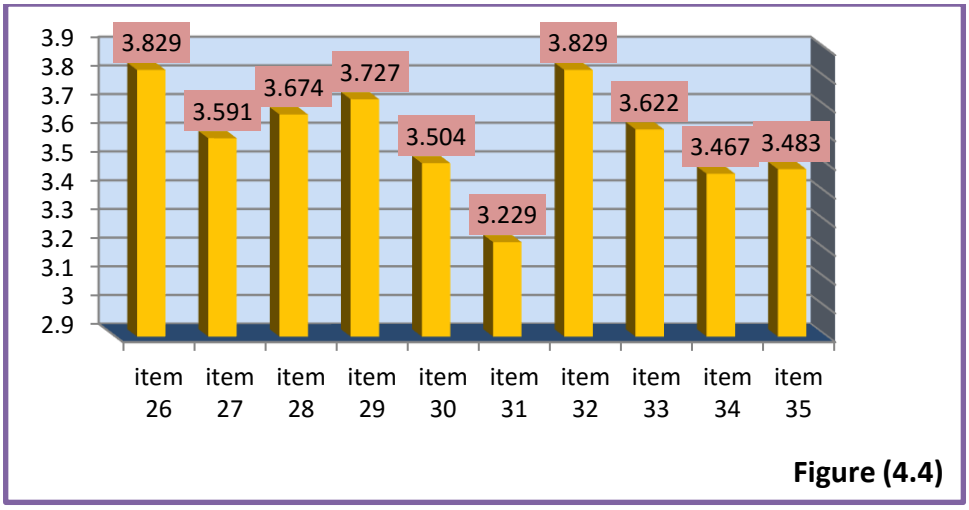


Figure (4.4)

4.2.5 Communication and information exchange

This domain includes six items that explain communication and information exchange through team meetings in an open and comfortable areas. The domain also discusses the efforts of the team members to communicate with patients to be involved in treatment plan, trusting the accuracy of documentation and using patient record as a communication tool among health professionals. Table (4.6) shows the items of the domain and the responses of participants.

As seen, in item (40) 24.2% of participants disagreed that meetings provide an open, comfortable, safe place for discussing concerns. 28.4% of the sample were undecided about that. Approximately 10% -15% of health providers in the overall items were disagree with using patient record as a communication tool, trusting accurate documentation and sharing the patient in changing the treatment plan and its goals. Figure (4.14) presents comparison of means within the items of the domain.

Table (4.6): Participants' responses on domain (communication and information exchange)

No.	Statement	S. disagree	Disagree	Neutral	agree	S. agree	Mean	S.D.
36	Patients/clients concerns are addressed effectively through regular team meetings and discussion.	9 (1.9)	35 (9.9)	72 (21.4)	197 (59.4)	27 (7.4)	3.606	0.836
37	Our team has developed effective communication strategies to share patient/client treatment goals and outcomes of care.	12 (2.8)	34 (9.6)	72 (21.4)	205 (61.9)	17 (4.3)	3.554	0.833
38	Relevant information relating to changes in patient/client status or care plan is reported to the appropriate team member in a timely manner.	9 (1.9)	33 (9.3)	52 (15.2)	212 (64.1)	34 (9.6)	3.702	0.836
39	I trust the accuracy of information reported among team members.	16 (4.0)	34 (9.6)	77 (22.9)	189 (57.0)	24 (6.5)	3.523	0.903
40	Our team meetings provide an open, comfortable, safe place to discuss concerns.	31 (8.7)	53 (15.5)	83 (28.4)	158 (47.4)	15 (3.7)	3.219	1.038
41	The patient/client health record is used effectively by all team members as a communication tool.	16 (4.0)	29 (8.0)	64 (18.9)	194 (58.5)	37 (10.5)	3.634	0.920

Figure (4.5): comparison between means of the six items within communication and information exchange

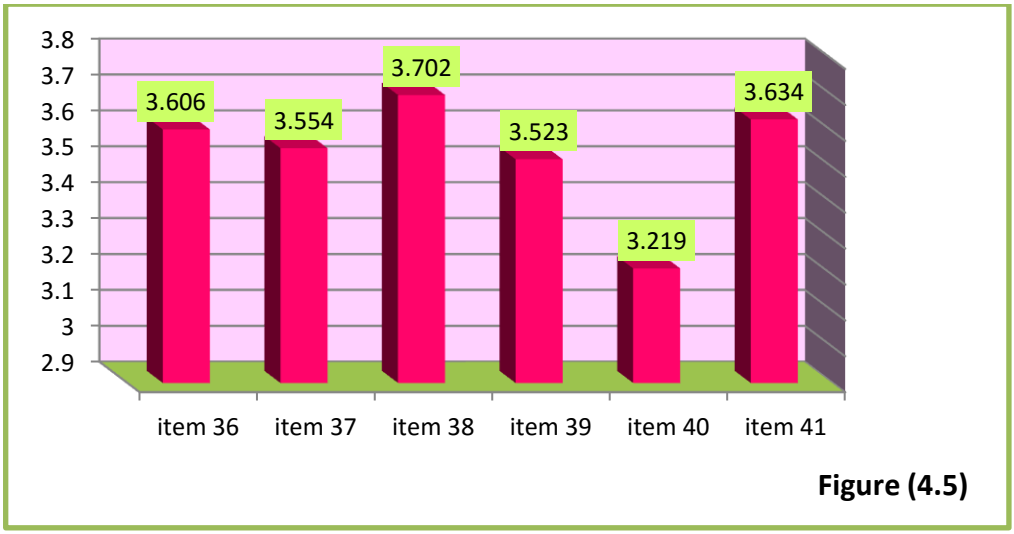


Figure (4.5)

4.2.6 Community linkages and coordination of care

This domain of only four items addresses an issue related to establishing partnership with community organizations which aims at sharing information, coordinating efforts and improving patient outcomes. Table (4.7) presents responses of health providers in respect to these items.

Table (4.7): Participants' responses on domain (community linkages and coordination of care)

No.	Statement	S. disagree	Disagree	Neutral	agree	S. agree	Mean	S.D.
42	Our team has established partnerships with community organizations to support better patient/client outcomes.	33 (9.3)	63 (18.6)	106 (31.9)	119 (35.3)	19 (5.0)	3.080	1.051
43	Members of our team share information relating to community resources.	19 (5.0)	59 (17.3)	112 (33.7)	131 (39.0)	19 (5.0)	3.216	0.956
44	Our team has a process to optimize the coordination of patient/client care with community service agencies.	23 (6.2)	59 (17.3)	113 (34.1)	127 (37.8)	18 (4.6)	3.173	0.978
45	Patient/client appointments are coordinated so they can see multiple providers in a single visit.	28 (7.7)	56 (16.4)	88 (26.3)	140 (41.8)	28 (7.7)	3.253	1.067

It is apparent that participants who expressed their agreement on these items didn't exceed 50% in the best item. Around 25% of health professionals disagreed this domain which needs careful discussion in order to address the reasons beyond that. A comparison between means is shown in figure (4.6).

Figure (4.6): comparison between means of the four items within community linkages and coordination of care

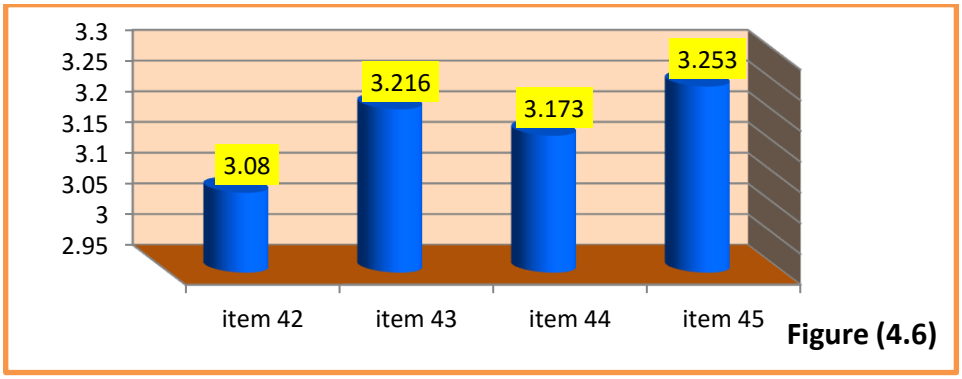


Figure (4.6)

4.2.7 Decision-making and conflict management

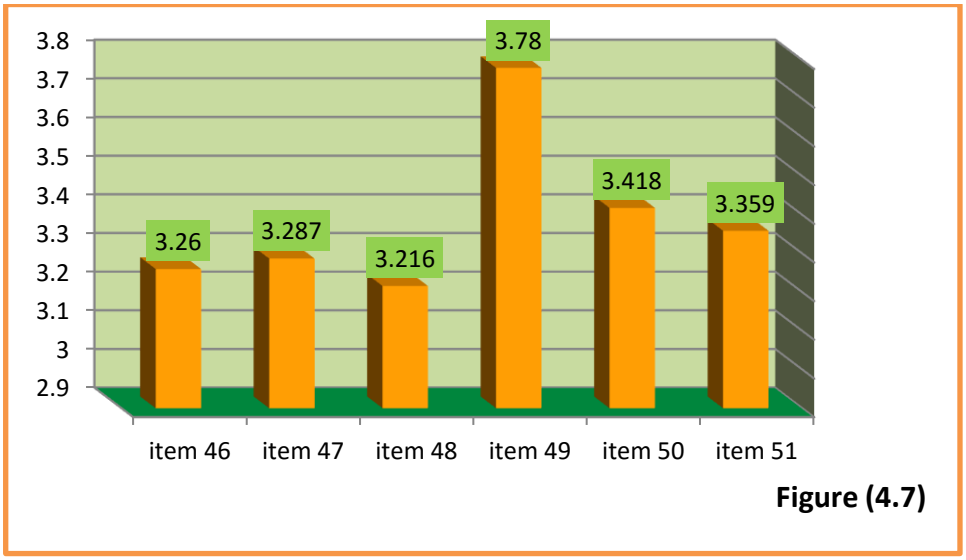
Domain (7) discusses the way that the team deal with any conflict and how the members make their decisions as a response to that conflict. The processes, collective participation and sharing decisions are critical in managing problems that may arise during team working. Table (4.8) presents the responses of participants in relation to the items of the domain.

Table (4.8): Participants' responses on domain (decision-making and conflict management)

No.	Statement	S. disagree	Disagree	Neutral	agree	S. agree	Mean	S.D.
46	Processes are in place to quickly identify and respond to a problem.	16 (4.0)	59 (17.3)	107 (32.2)	139 (41.5)	19 (5.0)	3.260	0.939
47	When team members disagree, all points of view are considered before deciding on a solution.	17 (4.3)	56 (16.4)	104 (31.3)	141 (42.1)	22 (5.9)	3.287	0.955
48	Disagreements among team members are ignored or avoided.	17 (4.3)	64 (8.9)	106 (31.9)	136 (40.6)	17 (4.3)	3.216	0.947
49	On our team, the final decision in patient/client care rests with the physician.	4 (0.3)	29 (8.0)	64 (18.9)	195 (58.8)	48 (13.9)	3.780	0.794
50	In our team, there are problems that regularly need to be solved by someone higher up.	15 (3.7)	52 (15.2)	83 (24.8)	161 (48.3)	29 (8.0)	3.418	0.966
51	Our team has an established process for conflict management.	17 (4.3)	48 (13.9)	96 (28.8)	158 (47.4)	21 (5.6)	3.359	0.939

In item (49), 58.8% of participants said that the final decision in patient care rests with the physician and the mean for this item was better off among other item within the domain (3.78). 42.1% reported that all points of view are considered before deciding on a solution when team members disagree whereas 40.6% reported that disagreements among team members are ignored. Around half the sample stated that regular problems need to be solved by a person of higher level of management. 13.9% reported that the team hasn't an established process for managing conflict. Figure (4.7) shows differences among means of the items.

Figure (4.7): comparison between means of the six items within decision-making and conflict management



4.2.8 Patient involvement

In this domain which includes five items, patient is considered the corner stone in healthcare. So, the domain illustrates involving the patient as a team member who is having his own decision and shares information during face to face meetings with other team members. The family has a critical role in supporting active participation of the patient as well.

Nearly half of participants in most items reported agreement with encouragement of patients to be active participants, information sharing and family support but the mean for this item 52 was the lowest (3.312). In the same time, a quarter of the study sample approximately were neutral in their responses about the same items. In item (53), 71.6% of providers were careful about meeting patients face to face in order to improve patient involvement thus this item reported the best mean (3.684).

Table (4.9): Participants' responses on domain (patient involvement)

No.	Statement	S. disagree	Disagree	Neutral	agree	S. agree	Mean	S.D.
52	Team members encourage patients/clients to be active participants in care decisions.	15 (3.7)	60 (17.6)	92 (27.6)	153 (45.8)	20 (5.3)	3.312	0.948
53	Team members meet face-to-face with patients/clients cared for by the team.	7 (1.2)	34 (9.6)	60 (17.6)	207 (62.5)	31 (9.1)	3.684	0.814
54	Information relevant to health care planning is shared with the patient/client.	9 (1.9)	45 (13.0)	103 (31.0)	158 (47.4)	25 (6.8)	3.442	0.869
55	The patient/client is considered a member of their health care team.	12 (2.8)	53 (15.5)	81 (24.1)	166 (49.8)	28 (7.7)	3.442	0.938
56	The patient's/client's family and supports are included in care planning, at the patient's request.	19 (5.0)	57 (16.7)	77 (22.9)	160 (48.0)	27 (7.4)	3.362	1.007

Figure (4.8): comparison between means of the five items within patient involvement

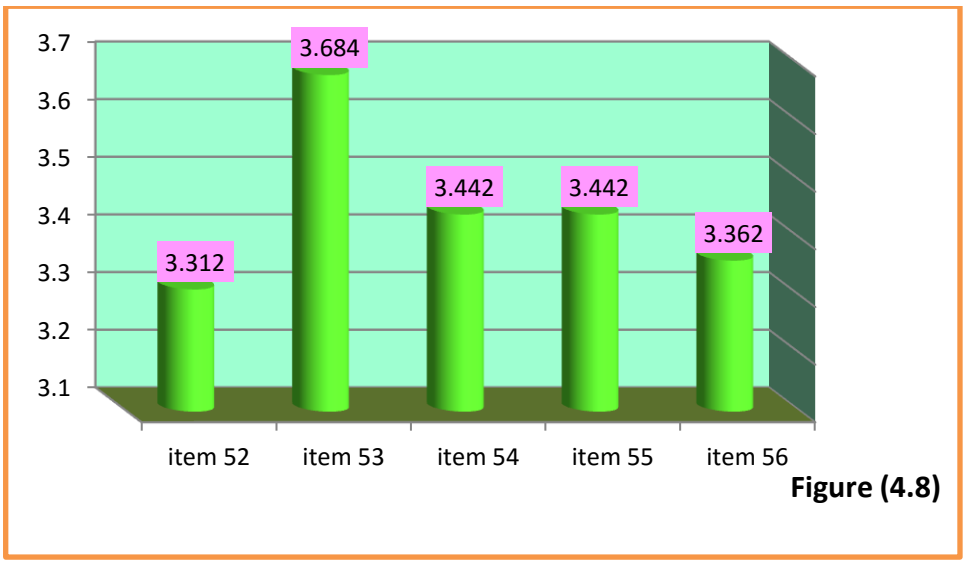


Figure (4.8)

After displaying each domain alone, Table (4.10) exhibits the level of overall collaboration among health care providers according to the overall mean of the eight domains. The mean of the domain of general relationships elicited highest (3.943) and that for mission, meaningful purposes and goals elicited second highest (3.725) but the mean of the domain of community linkages and coordination of care showed lowest (3.181). More details will be exhibited within the section of discussion.

Table (4.10): Level of collaboration among study participants

No.	Domain	Mean score	Mean Percent (%)	Standard Deviation
1	Mission, meaningful purpose, goals	3.725	74.5	0.596
2	General relationships	3.943	78.8	0.478
3	Team leadership	3.494	69.88	0.530
4	General role responsibilities, autonomy	3.595	71.9	0.564
5	Communication and information exchange	3.540	70.8	0.664
6	Community linkages and coordination of care	3.181	63.62	0.821
7	Decision-making and conflict management	3.448	68.96	1.233
8	Patient involvement	3.448	68.96	0.706
Overall		**3.583**	**71.66**	**0.469**

Figure (4.9): Level of collaboration among study participants according to the mean

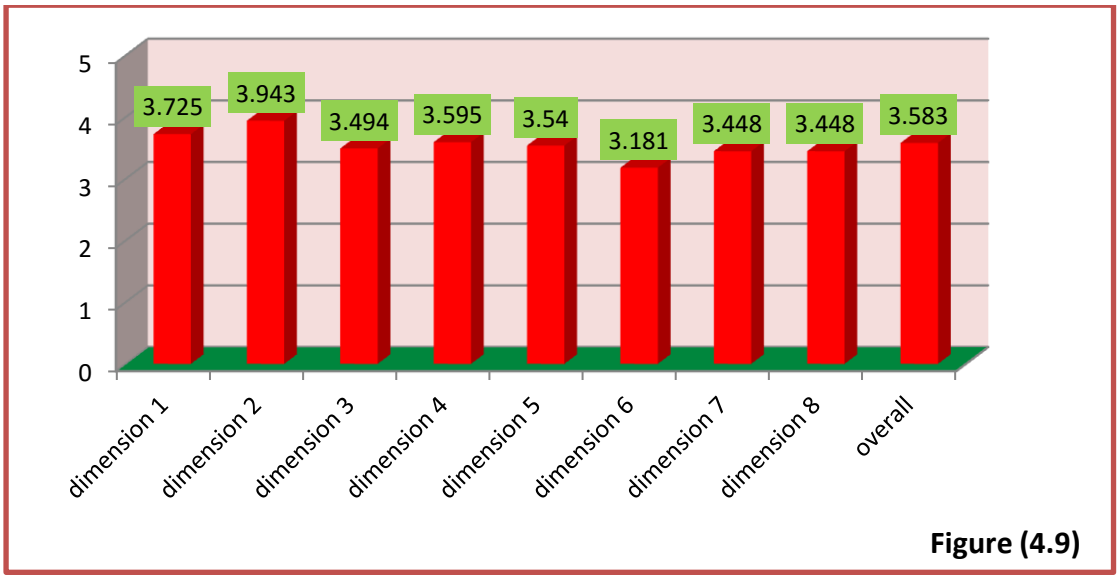


Figure (4.9)

4.3 Discussion

Inferential analysis is necessary to determine whether variance in IPC amongst respondents of healthcare providers exists or not, and whether it is related to socio-demographic characteristics of participants. Therefore, t-test, ANOVA and post hoc tests have been applied. Results were grouped based on relevance and compared with other global findings. Moreover, explanation possibilities of certain findings are

presented as concluded from interviews and focus groups and interpreted form the whole data.

4.3.1 Differences in IPC domains in reference to socio-demographic aspects:

The study findings indicated statistically significant variances in IPC domains influenced by socio-demographic characteristics of the study respondents. The Post hoc tests indicated statistically significant variance between some groups related to socio-demographic variables as shown in Table 4.11.

Table (4.11): Differences in domains-related groups of IPC in relation to socio-demographic characteristics

Independent Variable		IPC domain	Mean Difference	Significance P <_ 0.05
Gender	Male - female	**General role, responsibilities and autonomy**	1.633	0.010
Experience years	(6-10) – (1-5)		-2.419	0.029
	(6-10) – (11-15)		-2.364	0.059
	(6-10) – (16 and more)		-3.076	0.022
Age	(51-60) – (21-30)	**Decision making and conflict management**	5.768	0.009
	(51-60) – (31-40)		6.709	0.002
	(51-60) – (41-50)		5.692	0.017
Work place	Al-Hilal – Kamal Adwan		7.169	0.035
	Al-Hilal – EGH		6.671	0.028
Position	regular employee – specialist		-4.030	0.024
Education level	diploma – postgraduate	**Patient involvement**	1.865	0.011
Specialty	nurse – pharmacist		3.626	0.007
Specialty	nurse – pharmacist	**Communication and information exchange**	3.683	0.023
Experience years	(16 and more) – (11-15)	**Community linkages and care coordination**	1.95	0.012

4.3.1.1 Differences in mission, meaningful purpose and goals

Experience years of participants was the only independent variable that influenced the domain of mission, meaningful purpose and goals and resulted in statistically significant differences as (P = 0.049). There wasn't a statistically significant variance among groups of participants according to their years of experience. However, there was an argument appearing through interviews and highlighted causes other than experience years. An interviewee said *"our goals are unified and derived from the goals of MOH"* [hospital director] while another said *"really, the goals of members are prioritized"* [nursing manager] and a third suggestion was *"professional goals overcome IPC ones"* [pharmacist manager]. This seperation in goals is inconsistent with Alexander et al (1996) article which assumes that working of team members from multiple professions together occurs on a comprehensive care plan. Here, the researcher can say that the professional culture and social identity as barriers to IPC play a negative role. This is consistent with what had been mentioned in the literature (Borst, 2011; Pecukonis, E. & Bliss, 2008; Hall, 2005). According to Table 4.10, the mean for this domain is 3.725, mean percentage %74.5 and standard deviation 0.596. These results might give a positive impression about the unity of goals among healthcare providers. Based on CAS, this domain is in the mid way from improvement to significant improvement. So, some real changes may be needed in the light of qualitative findings in order to improve the status of IPC as a whole.

4.3.1.2 Differences in general relationships

However there weren't statistically significant differences among study participants in respect to their general relationships, there were some interesting findings that have to be considered. Quantitatively, the overall mean for this domain was 3.943 and it was the highest among means of other domains. Regarding Table 4.3, means of some items were lesser than others. There are fine-grained problems in both items related to respect for others' roles and expertise (mean = 3.702) as well as trust of other members' work related to patient care (mean = 3.678). Qualitatively, some findings were relevant to both items. A hospital director said *"neither respect for expertise nor care for wellbeing of others did present"*. The relationships among professionals from different professions are rare, *"just formal relationships, panel announcement and text messages"* [lab. technician]. *"Workload and time constraints don't let any chance for that, there is no time"* [physician]. *"Relationships inside department are wonderful but not outside"* [physiotherapist]. *"There*

is a slow movement towards strengthening the social and personal relationships" [staff nurse]. It is worth to be mentioned here that there is semi-consensus that general relationships are the magic key for IPC. This is similar to what had been suggested in the literature in relation to positive impact of interprofessional communication and adverse effects when it is lacked (Page 22,23 &24).

4.3.1.3 Differences in team leadership

ANOVA indicated that there was a statistical significance due to the variations among responses of health professionals in relation to four independent variables. These variables were; age (P = 0.038), specialty (P = 0.019), work place (P = 0.024) and years of experience (0.045).

Regarding age, it is normal for health providers to understand well the role of the team leader in collaborative work and how to select their leader according to the patient care. The attributes of the leader can be varied from one to another based on many factors. The researcher suggests that age is one of these factors as the maturation of health provider differs with regard to this variable. Age can influence the way of thinking and differentiation between individual and team needs. This is consistent with Wegge et al (2008) study which stated that older professionals have the time and knowledge to help younger ones to perform complex tasks such as shared leadership within the team.

When talking about team leadership, we mean shared leadership among physicians, team leaders, and other health professionals as members of collaborative team. One of the important findings in this study is the statistical significance of variations among health providers of various professions in relation to the domain of team leadership. Based on table 4.4, most respondents aren't sure about the role of team leadership in both encouraging other professionals to be initiative in relation to patient care and also their being in touch with the concerns and perceptions of other team members. Furthermore, qualitative findings show a status of a relevant dialectic. A senior physician said *"the protocols in our hospital are clear enough to let physicians having their leading role".* In another hospital, a staff nurse said *"no no, doctors just lead other doctors as they can collaborate with" .. "we have to appreciate the higher status of physicians"* [administrative manager]. A nurse manager said *"it is the ministry of physicians and they need all to be executives only". "It is difficult to let physicians lead, they underestimate others' work"* [pharmacist]. A staff nurse within a focus group discussion refuses generalization and said

"physician leadership may vary from one to another in reference to his knowledge, values and attitude". There is consistency between these findings and those mentioned in the literature. Regarding their role, some studies stated that team leaders offer the chance to create a safe environment for all healthcare professionals, to engage them with the agreed vision and commitment and to allow the different voices to be heard and integrated (Banfield & Lackie, 2009; Gilbert et al, 2010; Salisbury & Byrd, 2006).

With regard to work place and experience years, the variations among participants were significant. Generally, the leadership may vary in response to the team size and the place of work. The years of experience give the team members the skills and expertise to understand their roles in relation to shared leadership. These results can be explained in the light of aforementioned studies in the literature. A study suggested that there are variations in leadership support from unit to unit which clearly made the difference in the integration of communication strategies into practice (Catherine, D. et al, 2009). Pecukonis et al (2009) suggested that certain types of expertise are needed to construct the base for leadership among healthcare providers within the team at a specific time. Wegge et al (2008) studied the team size as a moderator in team performance and concluded that the members of small groups have the ability for improving performance more than those within large groups.

The overall mean of this domain (team leadership) is 3.494. Regarding CAS, it is clear that there is a gap in the role of physicians as team leaders which needs further investigation for identifying the main causes of that eternal tension and recognizing the suitable steps to be addressed.

4.3.1.4 Differences in general role responsibilities and autonomy

Considering t-test and ANOVA, they indicated that there was statistical significance due to the variations among health professionals in relation to two independent variables. These variables were; gender ($P = 0.01$) and years of experience ($P = 0.003$).

First, gender influenced the domain of general role, responsibilities and autonomy and resulted in statistically significant variances ($P = 0.01$). The researcher illustrates that the statistical significance is arising from that the dominant constituent of healthcare teams at targeted hospitals which is males. In addition, the hierarchical organizations often give women fewer opportunities to influence their working conditions although they appear

more willingness to change the current status of hierarchical system (Wilhelmsson et al, 2011). As a result, this imposes a male-lead power that diminishes spaces for females. This is congruent with the statement, historically, the power held by a predominantly male medical profession may have arisen primarily from gender rather than from hierarchical position (Zelek & Phillips, 2003).

Post hoc tests were used to indicate the statistically significant variances in details which are related to the variable of experience years. There was variance between health professionals who have had experience years (6-10) years and those having (1-5) years in relation to the domain of general role responsibilities and autonomy. The mean difference was (-2.419) and (P = 0.029). Concerning the same domain, also there were a statistically significant differences between the participants who having experience years (6-10) and those (16 and more). The mean difference was (-3.076) and (P = 0.022). It was surprising for the first time to find that the mean of participants having experience of (1-5) years larger than those of (6-10)years. This surprise disappears when the researcher finds the consistency with the study of Mitchell et al (2012). That study conducted that new team members work together to recognize the roles and responsibilities clearly. After a period of time, roles and responsibilities will be clarified. Team members may find themselves not comfortable in this situation. As the work continues, health providers seek support of various aspects to override negative responses. The team have to promote an environment of sustainable learning in which striving advice or help is considered a strength (Mitchell, P. et al, 2012).

Through interviews and focus groups, findings pointed out that roles and responsibilities are clear for health professionals. *"we inform the new comers everything about their roles"* [nursing manager]. Conversely, a hospital director said *"there isn't a clear job description to determine the role of each team member in order to avoid confusion"*. Concerning autonomy, *"physicians consider other professionals opinions secondary and not important"* [pharmacist]. Slightly positive, a nursing manager said *"there is a slow progress in relation to this issue but it is early to say good"*, *"really we strive to collaborate but there are many impeders"* [physician]. *"They, physicians, need us to work without follow up for the results"* [lab. Manager]. This status of role confusion would lead to ineffective collaboration among healthcare professionals. This result is consistent with previously mentioned studies. Role confusion is one of the key factors

which prevent collaboration (Loy et al, 2015). Misunderstanding of each other's roles and tasks and lack of explicit descriptions are barriers to good interprofessional relationships (Martin et al, 2010). Consistent difficulties of IPC relate to "communication, understanding other health professionals' roles, effective team working skills (McCallin, A., & McCallin, M., 2009).

The overall mean of this domain is 3.595. Based on CAS, serious changes could be implemented in reference to role clarity and autonomy in order to enable other health providers to understand their roles and express their knowledge in an effective manner.

4.3.1.5 Differences in communication and information exchange

The communication with patients and information exchange among providers are very important in collaboration. The variations appearing in this domain were related to specialty and position of health professionals. ANOVA indicated that there was a statistical significance for those differences as (P = 0.001) and (P = 0.041) respectively. Post hoc tests were used and resulted in a statistically significant variation between nurses and pharmacists, (mean difference = 3.683) and (P = 0.023).

Qualitatively, a physician said *"the record isn't used well among colleagues as a communication tool"*. *"we don't attend meetings of physicians"* [physiotherapist]. A hospital director said *"we have a committee for reviewing medical records and providing help for professionals for further improvement"*. In another hospital, *"our system produces information of high quality and quantity"* [administrative manager], *"so, mutual trust is the steering tool of our collaboration"* [staff nurse], while in a third hospital a nursing manager said *"I am unhappy, there is a wide gap..nurses document and no one pays attention for that"*. Ideally, healthcare providers have to trust each other but a physician said *"I don't trust information and then the work of some colleagues"*.

These findings are consistent to some extent with aforementioned studies. The study of Hansson et al (2010) stated that nurses are more significantly positive about collaboration and also more confident in their profession than general practitioners. Thus, nurses may play an important role, as a coordinating body among other professionals, in communication and information exchange.

Regarding position in work, the researcher expects to find that the higher position of health provider is the more his communication and information exchange improve.

Generally, Cott (1997) studied the impact of administrative level in information exchange and concluded that higher status interprofessional members communicated most openly and worked fairly and exchanged information well. In contrast, hierarchical nursing sub-teams did not report high levels of information sharing.

4.3.1.6 Differences in community linkages and coordination of care

This domain of IPC has the least mean among other domains as (mean = 3.181). Three independent variables influence this domain. They were specialty, work place and years of experience. Differences born by these variables were statistically significant. P- values of these variables were (0.042 - 0.015 - 0.008) respectively. Post hoc tests applied and resulted in statistically significant differences between healthcare providers who were having experience years of 16 and more, and those were having 11-15 years.

Based on their discussions, healthcare providers from various administrative levels stated that the chance to communicate with any agency or organization is limited. *"This issue is controlled centrally"* [consensus]. *"we may get some information or support but in its minimum levels"* [more than one professional].

The researcher thinks that the differences in reference to the specialty refers to the position of health professional in work place. The work places may vary on the basis of different factors that make organizations and agencies interested in some of them more than others. Regarding years of experience, the more the expertise of professionals the more they know how to deal with community agencies without opposing the governmental system. So, transformation towards decentralization under monitoring and mentoring is required for enhancing this domain towards improved IPC. Theoretically, it seems to be easy but it is necessary to shed light on this issue to be assessed by experts to built a concrete foundation for this domain by extracting advantages and overcoming harm consequences.

4.3.1.7 Differences in decision making and conflict management

As a core competency of IPC, decision making and conflict management showed some differences in relation to responses of study participants. The variations were statistically significant in respect to age, work place and position as P-values were (0.002, 0.01 & 0.021) respectively.

For more investigation, post hoc tests indicated that older healthcare providers were better off than younger ones. This is consistent with the statement of an interviewee *"older people are 'baraka', he means that their role is effective in alleviating conflict"* [staff nurse]. Wegge et al (2008) stated that is in complex group decision-making tasks, the work of team members will be facilitated as older workers may have the knowledge and time to help younger workers. Although the mean of that item was around 3.2, hospital director and nursing manager said *"committed protocols and morning meetings are good means for effective decision making and conflict managing"*. Aforementioned study discussed the factors needed for establishing an effective working culture. These factors involve structured systems for information and processes, strategies for effective communication and policies of conflict management (Gilbert et al, 2010).

Concerning the work place, the researcher expects that hospitals of small-sized teams tend to propose more collaboration in addition to easier decision making and conflict resolution than teams of large size. A nursing manager said *"here, we are representing a real family, all of us from the same city and our hospital is small thus the way of communication and coordination is easy".."I remembered that the last conflict occurred before two years"* [administrative manager]. These results are consistent with post hoc findings as Al-Hilal hospital showed statistically significant variations in respect to this domain when compared to Kamal Adwan and EG hospitals as (P = 0.035 & 0.028) respectively. In addition the variations between Al-Hilal and both Al-Shifaa and Al-Rantisy hospitals were close to be significant (P = 0.058 & 0.053) respectively. This seems to be coherent to previous studies which stated that the size of the team is important, since greater teams experience much more tension on effective communication while small groups have the ability for well-communication and decreasing conflict (Borrill et al, 2000; Wegge et al, 2008).

The position also influenced in a significant manner on the process of decision making and conflict management and this is consistent with a Greek study of Dimitriadou et al (2008). Post hoc tests illustrated an inverse relationship between the position and decision making as well as conflict management. There is consistency with a statement through an interview *"most professionals try to manage that and doing their best to not ascending it to the high administrative levels in order to save the social and personal relationships"* [pharmacy manager]. But, inconsistent with that result, an administrative manager said *"any conflict can be managed at high administrative levels using known and*

constant protocols". This result appears to be consistent with Cott study (1997) for both points of view.

In this study, the researcher suggested that regular employees are committed with work procedures and believe in ascending and descending pathways related to their work. They do that to capture safe culture of work and to avoid conflict with others. Specialists haven't enough time to communicate in a similar way. Eventually, specialists don't pay attention to the position of others as a result of bad competition in some cases.

In reference to its mean, table 4.10 showed that the mean for this domain was 3.448. Again on the basis of CAS, some tangible positive results are evolved but serious changes have to be implemented especially those relevant to responding to problems, other opinions to be considered, identifying the process of conflict resolution. So, a total revision is needed for recognizing the current situation and helping to find effective changes to accomplish a better off environment for collaboration.

4.3.1.8 Differences in patient involvement

With regard to the fact that the patient is the corner stone in healthcare sector, patient involvement is considered one of the most important core competencies. In our study, statistically significant differences were noticed after ANOVA in this domain in respect to education level (P = 0.01) and specialty (P = 0.001). As the study participants are grouped in relevance to the two variables, post hoc tests were needed and resulted in significant variances in both variables as shown in table 4.11.

Regarding education level, the differences were unexpected as the results showed that health providers who have held diploma certificate responded more positive than others either of bachelor or postgraduate certificates. The significance was in between diploma and postgraduate (mean difference = 1.865) and (P = 0.011). Previous studies showed two findings, one of them that aimed at determining how the level of education (diploma/baccalaureate, master's/doctoral) affects nurses' perceptions of their IPC and it was inconsistent with the second study of Dimitriadou et al (2008) which suggested that higher education levels negatively affect collaboration. Based on its findings, graduate-prepared nurses should be included within teams which considerate IPC. The findings empower the need for interprofessional education, particularly at the graduate level (Miller, 2004). Generally, the researcher is agree with the results of Miller (2004) to some

extent and strongly agree with his recommendations that is relevant to those at graduate level. Occasionally, the researcher reports that many healthcare providers who finished their high studies believe that they should be transferred from the practical field to a higher position which suits their qualification. By time, those graduated professionals start to underestimate the work that was done by them before.

Concerning specialty, healthcare providers may vary in patient involvement according to their work nature. It wasn't strange to find by post hoc tests that there was a statistically significant variation between nurses and pharmacists as (P = 0.007). Pharmacists are the least in their contact with patients among other providers within the study sample but this doesn't mind the advantage of involving pharmacists in collaborative teams. This is consistent with Makowsky study (2009), in which pharmacists showed lows in struggling with documentation and workload during engagement into the health care team.

Furthermore, discussions of interviews and focus groups added new findings. *"patients have no right to choose their physicians"* [physician]..*"patient can choose her physician but there is no chance to be altered*" [hospital director]..*"patients can specify their physicians, change is possible by filling out a specific application including an agreement of both doctors"* [administrative manager]. Three different procedures governing the same issue. *"Involving patients in treatment plan is rather good but the problem appears in confidentiality"* [hospital director]..*"we deal a vulnerable group, children, involving them occurred in a gentle manner with a high respect to their privacy"* [nursing manager]..*"in fact, involvement of patients isn't as we want and the confidentiality is preserved to some extent"* [staff nurse]. The researcher states that patient involvement is changeable in relation to several influencing factors and then it is achievable to some extent but differs from one place to another.

The overall mean of patient involvement domain was 3.448. Regarding CAS, the researcher suggests that there is an improvement in relation to patient involvement including how to encourage team members to involve patients and their families to be active participants in care decisions and how to share relevant information with patients within allowed boundaries.

4.3.2 Differences in IPC in reference to socio-demographic characteristics

Table (4.12): Differences in overall IPC in relation to socio-demographic characteristics

Independent Variable		N	Factor	Value	P <_ 0.05
Gender	Male	201	**t**	2.055	0.041
	Female	139			
Age (years)	21 – 30	131	**F**	2.791	0.041
	31 – 40	109			
	41 – 50	77			
	51 – 60	23			
Specialty	Physician	104	**F**	3.219	0.008
	Nurse	177			
	Lab. Technician	19			
	Radiology technician	13			
	Physiotherapy	11			
	Pharmacy	16			
Position	Regular employee	218	**F**	3.063	0.028
	Specialist	50			
	Consultant	8			
	Administrative post	64			
Marital status	Single	61	**F**	0.229	0.796
	Married	271			
	(Divorced / widow)	8			
Education level	Diploma	51	**F**	0.134	0.875
	Bachelor	198			
	Postgraduate	91			
Workplace	Kamal Adwan	37	**F**	1.863	0.100
	Al-Shifaa	137			
	Al-Rantisy	24			
	Al-Aqsa	47			
	EGH	76			
	Al-Hilal	19			
Type of Department	Closed	52	**t**	0.306	0.760
	Open	288			
Years of Experience	1 – 5 years	119	**F**	2.401	0.068
	6 – 10 years	88			
	11 – 15 years	79			
	16 years and more	54			

Results from Table 4.12 show the statistical differences in the overall level of IPC according to ANOVA and t-tests. With regard to independent variables, some of them resulted in variances which were statistically significant but others didn't. With regard to gender, t-test pointed out statistically significant variances among males and females in the overall level of IPC (P = 0.041). Males (mean = 203.219) were more collaborative than females (mean = 197.161). This finding is consistent with what has been concluded in Ivanova-Stenzel and Kübler study (2005). They tested the role of gender in teamworking and found that men do a significant effort in teamworking more than women. Also they stated, however, women perform best when competing in pure female teams, men perform best when women are present in a competitive environment. In contrast, female nurses have been reported to be more willing to serve and support male doctors than female doctors (Zelek & Phillips, 2003). In another study, Hansson et al (2010) found that gender hasn't any significant impact in attitudes of healthcare professionals towards collaboration.

Concerning age, there were statistically significant variances among age groups towards the overall level of IPC. In this study, age positively influences IPC and this appears to be inconsistent with the literature (Dimitriadou et al, 2008). From researcher's point of view, it is logical for older health professionals to be more collaborative than others due to different considerations. For older persons, beliefs and values play a critical role as steering factors which are so important to understand the nature of collaboration and reflect that into practice.

Regarding the specialty, there were statistically significant variances among healthcare providers. This result is consistent with qualitative findings as in most interviews and focus groups, the recurrent statement was "*collaboration among providers in our hospital is good but not as wanted*". Some of them interpreted the weak collaboration as a result of lacking coordinating system. "*knowledge, attitudes, values are insufficient to collaborate*" [nurse]. "*We collaborate well within our department only*" [radiology technician]. This means that absence of interprofessional training and lacking of educational curriculum on IPC creates a hazy status that leads to undesired aspects of ineffective collaboration. With that, another side of opinions was suggested, *"here, collaboration is very good so we are so comfortable"* [physician].. *"No doubt, our hospital is the best in respect to collaboration although some operational problems exist"* [administrative manager]. As a result, the researcher insists that we have to shed light upon other influencing factors that may affect

IPC. Generally, nurses were better off than others as good collaborators. The literature was consistent with that through aforementioned study of Hansson et al (2010) and Dimitriadou et al (2008). They suggested that nurses showed positive attitude towards collaboration and were more confident in their profession more than physicians. Other findings and discussions will be highlighted in relation to IPC's domains.

Based on Table 4.12, it was noticed that the position of health providers in the targeted hospitals positively influenced the overall level of collaboration. The variances among health providers of different positions were statistically significant. These findings seem to be coherent to the results of Dimitriadou et al (2008). In that study, analysis mentioned that the influence of nurses' positions in the hospitals of Northern Greece on collaboration was positive and statistically significant. In an interview, an administrative director said *"most of problems that may arise among health providers are being solved by the hospital board"*. But the prominent statement in more than one interview and focus group was *"yes, collaboration is positively related to the position but this depends upon the persons themselves"*. These findings clearly propose the importance of position as an influencing factor and rely a heavy responsibility on the rests of policy makers to pay attention when selecting the suitable person to match his position.

Table 4.10 proposed that the overall mean of IPC among health professionals was 3.583, mean percentage = 71.66 and standard deviation= 0.469. Concerning the assessment and description of CAS, 3.5 on this scale means that the IPC is in the stage of improvement. There is a positive tangible impact in health outcomes as a result of IPC among health professionals. In addition, some changes are needed to implement components which are necessary to sustain this improvement and support the practicing of IPC. Some of these changes would be concluded through findings and discussions of this study.

It is important to state that other independent variables influencing IPC results in variations in responses of healthcare providers but these differences weren't statistically significant. The marital status as (P = 0.796), level of education (P = 0.875), work place (P = 0.1), type of department (P = 0.76) and years of experience (P = 0.068).

Regarding marital status, the results in this study are consistent with aforementioned one which stated no effect of marital status on collaboration among health care providers (Dimitriadou et al, 2008). Some studies within the literature suggested positive impact in IPC and others pointed to negative influences. This study indicates that the effect wasn't

statistically significant. However the work place resulted in a significant influence on various domains of IPC but this wasn't similar to the overall collaboration. Type of department is expected to result in an outstanding effect whether it is positive or negative but there was no significant impact. The researcher thinks that masking of results relevant to department type is due to the small sample of participants who were working in closed departments if compared to those from open departments and this can be elucidated in cross-hospital analysis. The years of experience was the independent variable that leads to variations which were so close to the statistical significance as (P = 0.068).

Further investigation through other studies may contribute in addressing these variables in more details to get a more authentic depiction.

4.4 Cross-hospital Analysis

In the cross-hospital analysis we want to elucidate in what areas the targeted hospitals suggest the same points, and where they differ. To recap the findings from each hospital and allow for comparison, outcomes are profiled and explained as follows:

Theme 1: Unity of goals among health providers

At Al-Hilal, and Al-Rantisy hospitals, it was stated by interviewees and through focus group discussions that the goals of the plan are clear for various healthcare providers and the vast majority of them are working to accomplish these goals. There was a different opinion reported at Al-Shifaa and Kamal Adwan hospitals. They told that there is a prioritization of the individual goals as well as professional ones over than the interprofessional goals of the team. At EG Hospital, however some conflict aspects appear from one time to another, health professionals tend to achieve team goals as the presence of an established regulating system represents an effective enabler.

With regard to the unity of goals, the researcher suggests that monitoring and evaluation of the institutional plan is necessary for identifying the extent of healthcare professionals commitment towards interprofessional goals. In addition, IPE and training programs will be useful in enhancing the desire of health providers to work collaboratively.

Theme 2: General relationships between health providers

Generally, there is semi consensus either in interviews or focus groups discussions about the weakness of general relationships among healthcare providers. This weakness is due to the workload and time constraints which impede IPC. There are some variance which differs from one hospital to another. At Al-Hilal, the focus is on the formal general relationships using text messages and announcement panel but those which are warranted still remain within particular groups. For further improvement, they establish courses for interprofessional training in different fields on a regular basis. At Kamal Adwan hospital, they reported a slow movement towards strengthening the social and personal relationships which play an important role in improving collaboration as they convinced. At Al-Aqsa hospital, there is a significant difference, there is no respect for expertise or position among health providers as they said. At EG Hospital, the relationships are good just among professionals of the same profession or within the same department. Al-Shifaa, even in the same department, relationships also vary from place to place and on the basis of gender too.

The researcher says, doubtless collaborative relationships among healthcare professionals facilitate IPC to a large extent. The vast majority of study respondents believe in this statement but they find many barriers that are difficult to be overcome from their point of view. Lack of respect and trust among team members is considered a critical barrier. Generally, role confusion and distrust are considered individual-level barriers which have consequences that may harm IPC as previously mentioned within the literature.

Theme 3: Doctors as team leaders

This theme is related to two concepts; one of them is relevant to leadership and members knowledge about how to choose their leader, and the second is associated with the role of physicians as team leaders. At Al-Aqsa hospital, they stated that the role of team leader varies according to the personal characters. In addition, team members haven't the sufficient knowledge and skills of shared leadership. The current job description isn't enough to clarify the role of health professionals. At Al-Hilal, their own protocols and procedures are clear enough to choose the doctor who will lead the team on the basis of formal decision and there is a good commitment. Hence, IPC at Al-Hilal hospital is satisfactory as a result of homogenous mixture of team members, small-size and comfortable relationships with physicians. At EGH, there are two converse opinions, one

of them refuses the leadership of physicians, and it is similar to what has been found at Al-Rantisy hospital, and the second calls for taking care about the higher status of doctors as leaders of the team. At Al-Shifaa, there is an eternal tension between doctors and other health professionals. They also noted that no way for working together up till physicians estimate the work of other professionals to be acceptable as team leaders. At Kamal Adwan and Al-Rantisy, the professional relationships among doctors and others are horizontal, not hierarchical, in which each health professional carries out his role to provide the health care as expected.

As a crucial long-term process, it is imperative for each member within the team to understand his role as well as the roles of others. The researcher illustrates that the leader of the team has to be in touch with other members, know what they do and address their problems. Anyhow, the presence of protocols and procedures can be effective in implementing sufficient knowledge and skills for team members in order to facilitate shared leadership towards IPC. Other problems such as lacking of job description, insufficient knowledge and conflict about physician leadership role are a mixture of individual and practical-level barriers that have to be worked on as explained within the literature.

Theme 4: General responsibilities and autonomy

Regarding interviews and focus group discussions, there is an agreement about the understanding of health providers to their roles. But, there is an argument about responsibilities and autonomy. At Al-Rantisy hospital, health professionals suffer from the underestimation of some physicians and feel limited in the degree of autonomy. Physicians understand that collaboration is exclusive to other physicians and consider the work of other professionals secondary. The current situation at Kamal Adwan hospital is unsatisfactory but a sluggish progress occurs. At Al-Shifaa, role, responsibility and autonomy is referred to the personal characters of physician as well as other professionals. In a closed department at Al-Shifaa, another aspect arises when we know that the first and final decision is associated with the head of department nevertheless his opinion right or not. At Al-Aqsa hospital, this independent nature of work does not exist but there is limited degree of autonomy. Different professional backgrounds play an important role.

Regarding Al-Hilal hospital, the researcher points out some enablers which are helpful in sustaining improvement. They are role clarity, shared responsibility and suitable

autonomy which lead to comfortable work with the least degree of tension and conflict. Generally, physicians at EGH are ready to collaborate with other providers but they need enough communication tools and a skillful mixture of team members.

As written above, Al-Hilal gives a good impression about the current status of role responsibility and autonomy there. Meetings, advising, development of skills, knowledge in practice and evaluation are necessary in each hospital to enhance the status of IPC among health professionals. This is coherent with aforementioned studies (Daly, 2004; Haire, 2010; Suter et al, 2009). On the hand, there are a mix of barriers, individual (role clarity), practice (team size and communication tools) and system-level (lack of monitoring and evaluation) as previously mentioned in the challenges of IPC (Conference Board of Canada, 2012).

Theme 5: Mutual trust and information exchange among healthcare providers

Regarding mutual trust between healthcare providers in relation to the exchanged information about patients, there are various suggestions. At Al-Aqsa, this primarily depends on the accuracy and quality of the medical records in which they have to involve a minimum set of information about the patient, thus it varies from one place to another and from one person to another in terms of educational background, skills and honest intention to improve. But at Al-Hilal hospital, there are specialized committees that review and evaluate the completeness of medical records as a step towards quality improvement, so this issue is satisfactory. Comparing doctors and nurses at Al-Rantisy hospital, it is so clear that the mutual trust between doctors is weak, but this is different for nurses. Nursing notes are considered as a credited reference in some situations. At EGH, they are proud of producing information of high quantity and quality, so any health provider can get what he wants as soon as he needs. At Kamal Adwan hospital, there is a wide gap and critical shortage in this context. Only nurses look after their nursing notes and no one is aware of that though of their timely and completeness. At Al-Shifaa, this depends on the team members and their work quality, you may build up on one's work or to begin from zero with another. Although pharmacists produce the most well-prepared data which may help in planning and decision-making but the question here to which extent other healthcare providers, especially doctors, trust that and make use of these information?

In this theme, the researcher emphasizes on some basic enablers of IPC in the light of interviews and focus group discussions. Data availability, information exchange and

experience, and supervision are important facilitators which contribute in building positive relationships that have a clear impact in team outcomes which are consistent with the studies in the literature (Suter et al, 2009; Virani et al, 2012). Conversely, obvious barriers such are inadequate trust of work and skills, underestimation the work of professionals other than physicians and lack of collective educational background which results from the absence of policies, IPE and training, and ethics of communication between team members (Bartunek, 2011; CHSRF, 2007; Drummond et al, 2012; Willcox et al, 2011).

Theme 6: Collaboration with community to coordinate care

Based on the answers of healthcare providers from various administrative levels during interviews and focus groups, centralization is the dominant style of management regarding collaboration with community. A centralized body within the MOH is responsible for coordinating the channels of communication with the agencies of community. So the collaboration with other agencies is at its minimum level.

The researcher thinks that the centralized management of coordination with community agencies to gain information or get support aims at adjustment of this process because of the complex conditions in GGs. So, we cannot blame health professionals for these results which are relevant to their performance in this field as it is out of their hands. In normal situations, decentralization may address this problem as it will give the chance for more creative collaboration with the community and its institutions.

Theme 7: Decision making and conflict management

At Al-Hilal hospital, committed protocols are the effective way to solve any problem. In this context, morning meetings including all professionals from different professions are an important mean to manage the arising problems and make suitable decisions, hence we work altogether as a family. Steps in this context at Al-Rantisy are well known for all healthcare providers and well-controlled by protocols and policies within the hospital. At EGH, any conflict can be managed at high administrative levels using known and constant protocols which were early existed and have to be developed in a continuous manner. At Al-Shifaa, it depends upon conflict nature and problem seriousness, most professionals try to solve that and do their best to not ascending it to a higher administrative level in order to maintain the social and personal relationships among healthcare professionals. At Al-Aqsa,

the conflict is continuous and it is positive if it results in improving health outcomes. Punishment may be necessary in some cases as they stated.

The researcher explains the processes of making decisions and managing conflict. They are undertaken to identify the problem, consider all opinions, avoid ignorance, shared responsibility for making decisions and the presence of established procedures in managing conflict. Particularly, there are some positive points at hospitals that may formulate a foundation for improving this process that is related to IPC. Existing protocols and procedures, regular meetings, effective communication and mutual respect on an ethical base are significant enablers to keep the channels open for making useful decisions and resolving any conflict that can arise from various sources. These concluded enablers can harmonize those stated varieties in different studies (Pecukonis & Bliss, 2008; Gilbert et al, 2010; Mitchell et al, 2012).

Theme 8: Patient involvement in collaborative care

At Al-Shifaa, Al-Aqsa & Kamal Adwan hospitals, patients have no right to choose their physicians, but patients are getting informed about their health status and treatment plan to a superior extent. However patients aren't considered as team participants, the concept is still strange. But at Al-Hilal hospital, the patient can determine her doctor but there is no chance to follow up with another after that. Furthermore, patients are involved in their treatment plan to a large extent. At EGH, the patient is able to determine his doctor or to change after filling out an application conditioned with an agreement of both doctors. At Al-Rantisy, they communicate with a vulnerable group and then do their best to see sick children comfortable and happy. The privacy and confidentiality is preserved for patients to some extent at Al-Shifaa, Al-Hilal and EGH but this is unsatisfactory at Al-Aqsa and Kamal Adwan hospitals. At Al-Rantisy hospital, the level of confidentiality is of high quality in relation to the patients involvement and their families.

In terms of patient involvement, we notice more than positive aspect as most healthcare professionals believe in emphasizing on patient as the corner stone of treatment plan. The presence of a protocol which enables patients to determine the doctor they want at some hospitals is an advantage but needs a full depiction for generalization. Inadequate involvement of patients as team members and confidentiality as an ethical issue are prominent barriers. There are barriers to patient involvement which remain problematic in this critical core competency and impede full IPC. This seems to be consistent with a study

conducted by Ahmed et al. (2014) to establish some programs which depend on patient support and empowerment and found that they gave professionals the right skills to work in an environment of partnership and a well-processed system to reach the sustainable and successful aspect of collaborative care.

Chapter 5

Conclusion and Recommendations

5.1 Conclusion

The study builds its conclusion and suggestions to be presented in this chapter on the findings and results of assessing the study participants collaboration. The IPC eight domains tool used to obtain quantitative results, which then have been validated and explained with healthcare professionals in interviews and focus group discussions. Special focus was drawn towards assessing the current status of collaboration among health providers at governmental hospitals. IPC is assessed operationally through studying the six core competencies. The used tools assessed health professionals perception in eight domains to reflect the relevant responses for each item thought to constitute or indicate the overall IPC.

Main results indicate that the overall IPC of the study healthcare providers is in the improvement stage as many changes are required. The general relationships elicited the highest domain and the mission, meaningful purpose and goals domain elicited the second highest. It is noteworthy that community linkages and coordination of care was the domain with the least mean score. In between, the means of other five domains that range from 3.448 to 3.595.

Results suggest that some independent variables show significant influence on the level of overall IPC more than others. Gender illustrates a significant difference between males and females in relation to their collaboration. This result seems to be consistent with some studies but inconsistent with other ones. In GGs governmental hospitals, the result can be explained in respect to some societal boundaries and social norms. Age also significantly influences IPC among healthcare providers according to their responses regarding the age groups. It isn't strange for older professionals to collaborate well as beliefs and values act as steering factors of their behaviors. Specialty alongside with gender and age affects the level of IPC and results in differences among the respondents of various targeted professions. Through qualitative findings and cross-case analysis, the researcher concludes that nurses show an effective status of collaboration more than others. In contrast, physicians propose collaboration with other physicians but there is still a wide gap to

collaborate with other health professionals. With regard to the position, it proposes an impact in IPC as it is found that healthcare providers of higher positions affect the overall level of collaboration. Some of participants refuse generalization about that and try to link the position with the attributes of the person himself and the extent he matches his position.

Statistically, other independent variables don't show significant variances in the level of IPC. Marital status doesn't affect the level of IPC as the vast majority of participants were married (around 80%). Level of education also doesn't show any significant influence on IPC, this is a spot that needs further investigation. Similarly, place of work hasn't the impact which can be considered for significance in terms of statistics. Conversely, interviews, focus groups and cross-case analysis illustrate different results. Findings reflect a status of variation among targeted hospitals. It isn't fair to compare between hospitals to rank them as the context and conditions of each one are different in terms of physical space, team size, time and workload..etc. Generally, Al-Hilal hospital represents a good example for collaboration as a small and specialized hospital. Purposefully, it is necessary to assess each hospital as an independent case to get the detailed depiction and suggest the judged steps for future improvement. Although, type of department doesn't propose a statistically significant variations among those healthcare providers who work even in closed or open departments but interviews discussions were different. Quantitatively, the researcher thinks that the small sample of participants from closed departments affects the results to some extent. Interviews suggests more collaboration among team members in closed departments than those working in open ones. The chance for communication, continuous physical state, regular meetings, patient involvement are better off in closed areas but time constraints and heavy workload represent sources of masked tension. Experience years, as a variable, is slightly different. This independent variable leads to variations close to the statistically significant borders among the groups of healthcare professionals according to their experience years. This experience may vary from one health provider to another as it could be positive or negative based on his impression about colleagues and work history.

Particularly, independent variables also influence the eight domains of IPC in different ways. Concerning the domain of mission, meaningful purpose and goals, there are significant variations among healthcare providers according to their years of experience but other qualitative discussions discover additional influencing factors such as inconsistency between interprofessional goals versus professional and individual goals.

Cultivation of the concept of IPC is important for team members in order to create a status of loyalty and commitment which leads to prioritization of interprofessional goals.

The domain of general relationships elicited the highest achievement percentage (78.86%) when compared to other domains. Generally, the vast majority of healthcare professionals believe in its importance in IPC at hospitals but there is a gap between theory and practice. Formal relationships are of interest in most hospitals but those distinctive remain related to small groups and not an expression of a core competency which will result in a crucial change in IPC.

In terms of team leadership, it is found that four independent variables lead to statistically significant variances among responses of healthcare providers in relation to this domain. They are age, specialty, work place and experience years. It is easier for older persons to lead others as this can be more acceptable from others in addition to the maturation in personality, knowledge, behavior and experience. The hot dialectic was associated with the leadership of physicians. It is problematic for healthcare professionals to understand that in the same time in which they suffer from physicians' underestimation and lack of appreciation to their work. In addition, physicians understand collaboration as coordination with other physicians and the role of others secondary and not important. Some of interviewees try to suggest person-dependent probabilities but this remains away from common perceptions. Furthermore, the shared leadership differs according to the work place in respect to multiple factors. Years of experience influence the team leadership as expertise represents a quality, additive and effective key in the performance of team leaders. Total revision is needed to address these gaps among team members of various professions to enhance the process of improvement as its mean percentage for this domain was (69.88%).

With regard to the domain of general role responsibilities and autonomy, it is found that the overall mean of this domain was 3.595, which means that it is achieved by 71.9%. Therefore, some crucial changes are required to improve the current status and address the defects. Two independent variables have influenced this domain; gender and years of experience. The impact of gender is consistent with the literature which stated that the power of males within the team members is related to the gender more than hierarchy. It is important to re-contextualize this values and attitudes to give females the enough independency to express their work which positively affects the IPC between both genders.

Years of experience illustrate that the more the experience years are, the better the role responsibilities and autonomy will be. Findings from interviews and focus groups reported that physicians as team leaders don't ask other professionals about their opinions in most cases which makes them feel limited in relation to the effective participation and shared responsibility. In addition, role confusion and insufficient job description may increase harmful events.

Communication with patients and information exchange about them is considered one of the important domains as patient-relevant information is the core of work. This domain is accomplished by 70.8% according to the responses of study participants. The current gap may arise from the significant variations of specialty and position as independent variables. It is found that there is a significant difference between nurses and pharmacists in respect to this domain and this reflects the nature of work for each profession within the place of work. The mean difference was positive for nurses when compared with other targeted healthcare professionals. This means that nurses elicited best in relation to communication and information exchange. No doubt that the nursing notes represents timely and precise source of information which support their role as a coordinating body with other professions. Obviously, there is an argument about the trust among healthcare professionals and to which extent the information they provide are complete and of acceptance. Position of health professionals can either play a positive or negative role based on some variables and this seems to be consistent with aforementioned studies. Hence, further investigation is needed for being able to generalize.

The domain of community linkages and coordination of care elicited the least achievement percentage among other domains which was (63.62%). It is true that the percentage is low but this is can be explained in terms of the style of management related to this domain. Healthcare professionals illustrate that they cannot build any linkages as there is a central body that is responsible for that issue. However, there are some significant variances based on statistical results. Specialty, place of work and years of experience lead to these differences. The higher status of some professions, importance of work place to policy makers and expertise of some health professionals may be supportive factors in relevance to this domain.

The domain of decision making and conflict management shows significant variations in respect to three independent variables; age, work place and position. Older healthcare

providers are more able to give knowledge and experience for younger ones. The results show that Al-Hilal hospital has an advantage in this domain if compared to other hospitals. Available protocols and procedures, regular meetings and well communication are the prominent enablers in relation to making decisions and managing conflict. The position was a place of argument similar to what was stated in the literature. In this study, some of participants prefer ascending any conflict to be resolved by a person of higher position but others find resolving that within team members is better for maintaining healthy relationships. The total achievement of this domain is (68.96%), therefore related troubles have to be addressed in order for more improvement.

In reference to patient involvement, specialty and education level have a significant influence that results in important variances. Nurses elicited a higher degree of patient involvement than others in general and particularly pharmacists. Conversely, physiotherapists proposed a better off status of patient involvement more than nurses that can be explained in terms of their direct contact with patients of special cases and for a long time. With regard to education level, it is surprising to find healthcare providers who have held diploma certificates show a better degree of patient involvement than those holding higher certificates. In the light of qualitative findings, a dialectic was existed when talking about participation of patient within the team and the suggested choice for them to be involved in the treatment plan. The critical point here was the degree of confidentiality and the extent it is kept by healthcare staff. Al-Rantisy proposed a satisfactory degree in relation to this ethical consideration but this varies among other hospitals. The percentage of overall level relevant to patient involvement was (68.96%) which reflects the need to shed light on this area in order to establish effective steps for making the required improvement.

5.2 Recommendations

Depending upon the findings, the following recommendations reflect the basic needs for developing and sustaining interprofessional health care in the workplace that must be addressed to ensure best practice at governmental hospitals in GGs. These recommendations include:

5.2.1 System Recommendations

- Agree to a common vision and purpose for IPE and training with key stakeholders across all faculties and organizations and create policy and regulatory frameworks that support educators and health care providers to promote and practice collaboratively.
- Develop personnel policies that recognize and support collaborative practice and offer fair and equitable remuneration models through creating an environment in which to share best practices from workforce planning, financing, funding and remuneration which are supportive of IPE and IPC.
- Provide organizational support and adequate financial and time allocations for:
  - the development and delivery of IPE.
  - staff training in IPC directing programs.

5.2.2 Organizational Recommendations

- Develop IPE and IPC training curricula according to principles of good educational practice in order to enable healthcare providers to become more collaborative on an educational basis.
- Design a built environment that promotes, fosters and extends IPC by allowing adequate time, space and decreasing workload of healthcare professionals.
- Structure processes that promote shared decision-making, regular communication and community involvement. In addition, there is a need for developing governance models that establish teamwork and shared responsibility for healthcare service delivery between team members.
- Improve communication between all levels of the health system and develop the establishing database of best practices as well as communication tools.

5.2.3 Individual Recommendations

All healthcare professionals recognize their commitment to the principles of IPC by:

- Practicing and collaborating with other team members, patients and families in a way that enhances respect, trust and understanding.

- Understanding their roles and expertise, reflecting on their practice, being confident in their own abilities, knowing the standards and boundaries of their practice.
- Developing communication and conflict-management skills.

5.3 Recommendations for new areas of research

5.3.1 Practice research

- Establishment of a standardized assessment and documentation tool for use by interprofessional teams in clinical practice.
- Contextualize the interprofessional team across the various sectors.
- Impact of communication technologies and ease of access to information on the interprofessional team.

5.3.2 Outcomes research

- The value of integrating patient/family as part of the interprofessional team.
- Impact of interprofessional-based care on in-patient length of stay.
- Influence of interprofessional teams on staff satisfaction.
- Impact of IPE on professional practice and specific clinical outcomes.

5.3.3 Health system research

- Health economic evaluations of IPC strategies.

References

Ahmad, N., Ellins, J., Krelle, H., & Lawrie, M. (2014). *Person-centred care: from ideas to action*: Health Foundation.

Alexander, J. A., Lichtenstein, R., Jinnett, K., D'Aunno, T. A., & Ullman, E. (1996). The effects of treatment team diversity and size on assessments of team functioning. *Hosp Health Serv Adm, 41*(1), 37-53.

Banfield, V., & Lackie, K. (2009). Performance-based competencies for culturally responsive interprofessional collaborative practice. *J Interprof Care, 23*(6), 611-620.

Baroud, R. M. (2010). e-health Readiness, Lambert Academic publishing AG&Co.KG. Germany 2010.

Bartunek, J. M. (2011). Intergroup relationships and quality improvement in healthcare. *BMJ Qual Saf, 20 Suppl 1*, i62-66.

Bateman, H., Bailey, P., & McLellan, H. (2003). Of rocks and safe channels: learning to navigate as an interprofessional team. *J Interprof Care, 17*(2), 141-150.

Boone, H. N., & Boone, D. A. (2012). Analyzing likert data. *Journal of extension, 50*(2), 1-5.

Borrill, C. S., Carletta, J., Carter, A., Dawson, J. F., Garrod, S., Rees, A., . . . West, M. A. (2000). *The effectiveness of health care teams in the National Health Service*: University of Aston in Birmingham.

Borst, J. (2011). interprofessional collaboration: an introduction. *Tartalom/Table of contents*, 32.

Brewer, M. (2011). Curtin University's faculty of health sciences interprofessional capability framework: Perth: Curtin University. Retrieved from

http://healthsciences. curtin. edu. au/local/docs/IP_Capability_Framework_booklet. pdf.

Bridges, D. R., Davidson, R. A., Odegard, P. S., Maki, I. V., & Tomkowiak, J. (2011). Interprofessional collaboration: three best practice models of interprofessional education. *Medical Education Online, 16*.

Canadian Health Services Research Foundation. (2007). CHSRF synthesis: Interprofessional collaboration and quality primary healthcare *Ottawa, Canada: CHSRF*.

Canadian Interprofessional Health, C. (2010). A national interprofessional competency framework.

Canadian medical association. (2007). Putting patients first: Patient-centred collaborative care *Alberta, Canada* (pp. 1-16).

Canadian Nurses Association. (2007). CFPC–CNA Vision Statement in Interprofessional Care. *Ottawa/Mississauga: Authors. Retrieved April, 7*, 2009.

Canadian Nurses Association. (2011). Position statement: Interprofessional collaboration. *Ottawa, ON: CNA*.

Casimiro, L., Hall, P., Archibald, D., Kuziernsky, C., Basset-Latulippe, A., & Varpio, L. (2011). Barriers and enablers to interprofessional collaboration in health care: Research report. *Champlain Region: Academic Health Council*.

Catherine Dingley, R., Kay Daugherty, R., & Mary, K. (2009). Improving Patient Safety Through Provider Communication Strategy Enhancements.

Chan, A. K., & Wood, V. (2010). Preparing tomorrow's health care providers for interprofessional collaborative patient-centred today. *UBC Medical Journal, 1*(2).

Clark, P. G., Cott, C., & Drinka, T. J. K. (2007). Theory and practice in interprofessional ethics: A framework for understanding ethical issues in health care teams. *jic Journal of Interprofessional Care, 21*(6), 591-603.

Cohen, S. G., & Bailey, D. E. (1997). What makes teams work: Group effectiveness research from the shop floor to the executive suite. *Journal of management, 23*(3), 239-290.

Conference Board of Canada. (2012). Improving Primary Health Care Through Collaboration Briefing 2--Barriers to Successful Interprofessional Teams.

Cory Sevin, G. M., John Shepherd, MD; Tracy Jacobs, Cindy Hupke. (2009). Transforming Care Teams to Provide the Best Possible Patient-Centered, Collaborative Care.

Cott, C. (1997). We decide, you carry it out: A social network analysis of multidisciplinary long-term care teams. *Social Science & Medicine Social Science & Medicine, 45*(9), 1411-1421.

Daly, G. (2004). Understanding the barriers to multiprofessional collaboration. *British Medical Journal, 323*(7303), 28-31.

Dimitriadou, A., Lavdaniti, M., Theofanidis, D., Psychogiou, M., Minasidou, E., Konstadinidou-Straukou, A., & Sapountzi-Krepia, D. (2008). Interprofessional collaboration and collaboration among nursing staff members in Northern Greece. *international Journal of caring sciences, 1*(3), 140-146.

Drummond, N., Abbott, K., Williamson, T., & Somji, B. (2012). Interprofessional primary care in academic family medicine clinics Implications for education and training. *Canadian Family Physician, 58*(8), e450-e458.

Edward Pecukonis, O. D., & Bliss, D. L. (2008). Reducing barriers to interprofessional training: Promoting interprofessional cultural competence.

Epstein, R. M., & Street, R. L., Jr. (2011). The values and value of patient-centered care. *Ann Fam Med, 9*(2), 100-103.

Freshman, B., Rubino, L., & Chassiakos, Y. R. (2010). *Collaboration across the disciplines in health care*. Sudbury, Mass.: Jones and Bartlett Publishers.

Gilbert, J. H., Yan, J., & Hoffman, S. J. (2010). A WHO report: framework for action on interprofessional education and collaborative practice. *Journal of Allied Health, 39*(3), 196-197.

Gilbert, J. H. V., Yan, J., & Hoffman, S. J. (2010). A WHO report: Framework for action on interprofessional education and collaborative practice. *J. Allied Health Journal of Allied Health, 39*(SUPPL. 1), 196-197.

Gotlib Conn, L., Oandasan, I. F., Creede, C., Jakubovicz, D., & Wilson, L. (2010). Creating Sustainable Change in the Interprofessional Academic Family Practice Setting: An Appreciative Inquiry Approach. *Journal of Research in Interprofessional Practice and Education, 1*(3).

Haire, B. (2010). Interprofessional Care: A Model of Collaborative Practice.

Hall, P. (2005). Interprofessional teamwork: Professional cultures as barriers. *J Interprof Care, 19*(sup1), 188-196.

Hansson, A., Arvemo, T., Marklund, B., Gedda, B., & Mattsson, B. (2010). Working together--primary care doctors' and nurses' attitudes to collaboration. *Scand J Public Health, 38*(1), 78-85.

Health foundaion. (2014). Person-Centred Care Made Simple.

Heinemann, G. D., & Zeiss, A. M. (2002). *Team performance in health care : assessment and development*. New York: Kluwer Academic/Plenum Publishers.

Howard, J., Shaw, E. K., Felsen, C. B., & Crabtree, B. F. (2012). Physicians as inclusive leaders: insights from a participatory quality improvement intervention. *Quality Management in Healthcare, 21*(3), 135-145.

Interprofessional Education (IPE) and Chiropractic. (2008). Canadian Chiropractic Association.

Ivanova-Stenzel, R., & Kübler, D. (2005). Courtesy and idleness: Gender differences in team work and team competition.

Kocolowski, M. D. (2010). Shared leadership: Is it time for a change. *Emerging Leadership Journeys, 3*(1), 22-32.

Levin, K. A. (2006). Study design III: Cross-sectional studies. *Evidence-based dentistry, 7*(1), 24-25.

Lingard, L., Reznick, R., DeVito, I., & Espin, S. (2002). Forming professional identities on the health care team: discursive constructions of the 'other'in the operating room. *Medical education, 36*(8), 728-734.

Loy, B., Micheff, H., Nguyen, K., & O'Brien, V. (2015). Interprofessional Collaboration Between Occupational Therapists and Nurses in an Acute Care Setting: An Exploratory Study.

Ludwick, D. A., & Doucette, J. (2009). AdoPting electronic medical records in primary care: lessons learned from health information systems implementation experience in seven countries. *International journal of medical informatics, 78*(1), 22-31.

Makowsky, Schindel, Rosenthal, Campbell, &, T., & Madill. (2009). Collaboration between pharmacists, physicians and nurse practitioners: A qualitative investigation of working relationships in the inpatient medical setting. *J Interprof Care, 23*(2), 169-184.

Martin, J. S., Ummenhofer, W., Manser, T., & Spirig, R. (2010). Interprofessional collaboration among nurses and physicians: making a difference in patient outcome. *Swiss Med Wkly, 140*, w13062.

Mataria, A., Khatib, R., Donaldson, C., Bossert, T., Hunter, D. J., Alsayed, F., & Moatti, J.-P. (2009). The health-care system: an assessment and reform agenda. *The Lancet, 373*(9670), 1207-1217.

McCallin, A., & McCallin, M. (2009). Factors influencing team working and strategies to facilitate successful collborative teamwork. *New Zealand Journal of Physiotherapy, 37*, 2, 61-67.

Michan, S., & Rodger, S. (2000). Characteristics of effective teams: a literature review. *Australian Health Review, 23*(3), 201-208.

Miller, J. L. (2004). Level of RN educational preparation: its impact on collaboration and the relationship between collaboration and professional identity. *CJNR (Canadian Journal of Nursing Research), 36*(2), 132-147.

MOH. (2012). Governmental hospitals. Retrieved Feb, 27, 2016, from http://www.MoH.gov.ps/portal/

MOH. (2014). achievement report: creation and hope.

Mitchell, M., Groves, M., Mitchell, C., & Batkin, J. (2010). Innovation in learning–An inter-professional approach to improving communication. *Nurse Education in Practice, 10*(6), 379-384.

Mitchell, P., Wynia, M., Golden, R., McNellis, B., Okun, S., Webb, C. E., . . . Von Kohorn, I. (2012). Core principles & values of effective team-based health care. *Washington, DC: Institute of Medicine*.

Molyneux, J. (2001). Interprofessional teamworking: what makes teams work well? *J Interprof Care, 15*(1), 29-35.

Muldoon, L., Dahrouge, S., Russell, G., Hogg, W., & Ward, N. (2012). How many patients should a family physician have? Factors to consider in answering a deceptively simple question. *Healthcare Policy, 7*(4).

Myaskovsky, L., Unikel, E., & Dew, M. A. (2005). Effects of gender diversity on performance and interpersonal behavior in small work groups. *Sex Roles, 52*(9-10), 645-657.

Nembhard, I. M., & Edmondson, A. C. (2006). Making it safe: The effects of leader inclusiveness and professional status on psychological safety and improvement efforts in health care teams. *Journal of Organizational Behavior, 27*(7), 941-966.

Nolte, J., & Tremblay, M. (2005). Enhancing interdisciplinary collaboration in primary health care in Canada.

Oandasan, I. F., Conn, L. G., Lingard, L., Karim, A., Jakubovicz, D., Whitehead, C., . . . Reeves, S. (2009). The impact of space and time on interprofessional teamwork in Canadian primary health care settings: implications for health care reform. *Primary Health Care Research & Development, 10*(02), 151-162.

Orchard, C. A., Curran, V., & Kabene, S. (2009). Creating a culture for interdisciplinary collaborative professional practice. *Medical Education Online, 10*.

Orchard, C. A. (2010). Persistent isolationist or collaborator? The nurse's role in interprofessional collaborative practice. *Journal of Nursing Management, 18*(3), 248-257.

Orlowski, M. (2016). *Introduction to health behaviors : a guide for managers, practitioners & educators*.

PCBS, (2015). Palestinians at the end of 2015. Ramallah - Palestine.

Palestinian National Health Strategy. (2014-2016).

Panel, I. E. C. E., Association, A. D. E., Nursing, A. A. o. C. o., & Pharmacy, A. A. o. C. o. (2011). *Core competencies for interprofessional collaborative practice: Report of an expert panel*: Interprofessional Education Collaborative Expert Panel.

Pelzang, R. (2010). Time to learn: understanding patient-centred care. *British journal of nursing, 19*(14), 912.

Practice Education Committee. (2013). Advancing teams in Healthcare.

Registered Nurses' Association of Ontario. (2014). Developing and sustaining interprofessional health care : oPtimizing patient, organizational and system outcomes.

Robert Wood Johnson Foundation.(2011). *What Forces Could Influence Change*. Paper presented at the Team-Based Competencies: Building a Shared Foundation for Education and Clinical Practice, Washington.

Saha, S., Shipman, S. A., United, S., Department of, H., Human, S., United, S., . . . Bureau of Health, P. (2006). *The rationale for diversity in the health professions : a review of the evidence*. [Hyattsville, Md.]: United States. Department of Health and Human Services, Health Resources Administration, Bureau of Health Professions.

Salisbury, J., & Byrd, S. (2006). Why diversity matters in health care. *California Society of Anesthesiologists (CSA) Bulletin*, 90-93.

Schmitt, M., Blue, A., Aschenbrener, C. A., & Viggiano, T. R. (2011). Core competencies for interprofessional collaborative practice: reforming health care by transforming health professionals' education. *Acad Med, 86*(11), 1351.

Sommers, L. S., Marton, K. I., Barbaccia, J. C., & Randolph, J. (2000). Physician, nurse, and social worker collaboration in primary care for chronically ill seniors. *Archives of Internal medicine, 160*(12), 1825-1833.

Suter, E., Arndt, J., Arthur, N., Parboosingh, J., Taylor, E., & Deutschlander, S. (2009). Role understanding and effective communication as core competencies for collaborative practice. *J Interprof Care, 23*(1), 41-51.

Suter, E., Deutschlander, S., Mickelson, G., Nurani, Z., Lait, J., Harrison, L., . . . Ateah, C. (2012). Can interprofessional collaboration provide health human resources solutions? A knowledge synthesis. *J Interprof Care, 26*(4), 261-268.

Tardif, J. (2004). *Le transfert des apprentissages*. Montréal: Les Ed. Logiques.

Tieman, J., Mitchell, G., Shelby-James, T., Currow, D., Fazekas, B., O'dougherty, L., . . . Reid-Orr, D. (2007). Integration, coordination and multidisciplinary care: What can these approaches offer to Australian primary health care? *Australian Journal of Primary Health, 13*(2), 56-65.

Vanclay, F., & Bronstein, D. A. (1995). *Environmental and social impact assessment*. Chichester: J. Wiley.

Virani, T., Canadian Health Services Research, F., & Canadian Nurses, A. (2012). Interprofessional collaborative teams.

Walsh, C. L., Gordon, M. F., Marshall, M., Wilson, F., & Hunt, T. (2005). Interprofessional capability: A developing framework for interprofessional education. *Nurse Education in Practice, 5*(4), 230-237.

Wegge, J., Roth, C., Neubach, B., Schmidt, K. H., & Kanfer, R. (2008). Age and gender diversity as determinants of performance and health in a public organization: the role of task complexity and group size. *J Appl Psychol, 93*(6), 1301-1313.

Weiss, D., Tilin, F., & Morgan, M. J. (2013). *The interprofessional health care team: Leadership and development*: Jones & Bartlett Publishers.

Weldon, E., & Weingart, L. R. (1993). Group goals and group performance*. *British Journal of Social Psychology, 32*(4), 307-334.

Wilhelmsson, M., Ponzer, S., Dahlgren, L.-O., Timpka, T., & Faresjö, T. (2011). Are female students in general and nursing students more ready for teamwork and interprofessional collaboration in healthcare? *BMC Medical Education, 11*(1), 1.

Willcox, S., Lewis, G., & Burgers, J. (2011). Strengthening primary care: recent reforms and achievements in Australia, England, and the Netherlands. *Issue brief (Commonwealth Fund), 27*, 1-19.

WHO. (2004). *A glossary of terms for community health care and services for older persons*. Kobe, Japan: WHO.

WHO. (2006). The world health report: 2006: working together for health.

WHO. (2012). Being an effective team. Retrieved Mar 5, 2016, from http://www.who.int/about/licensing/en/index.html

Yeasmin, S., & Rahman, K. F. (2012). Triangulation'research method as the tool of social science research. *Bup Journal, 1*(1), 154-163.

Zelek, B., & Phillips, S. P. (2003). Gender and power: Nurses and doctors in Canada. *International Journal for Equity in Health, 2*(1), 1.

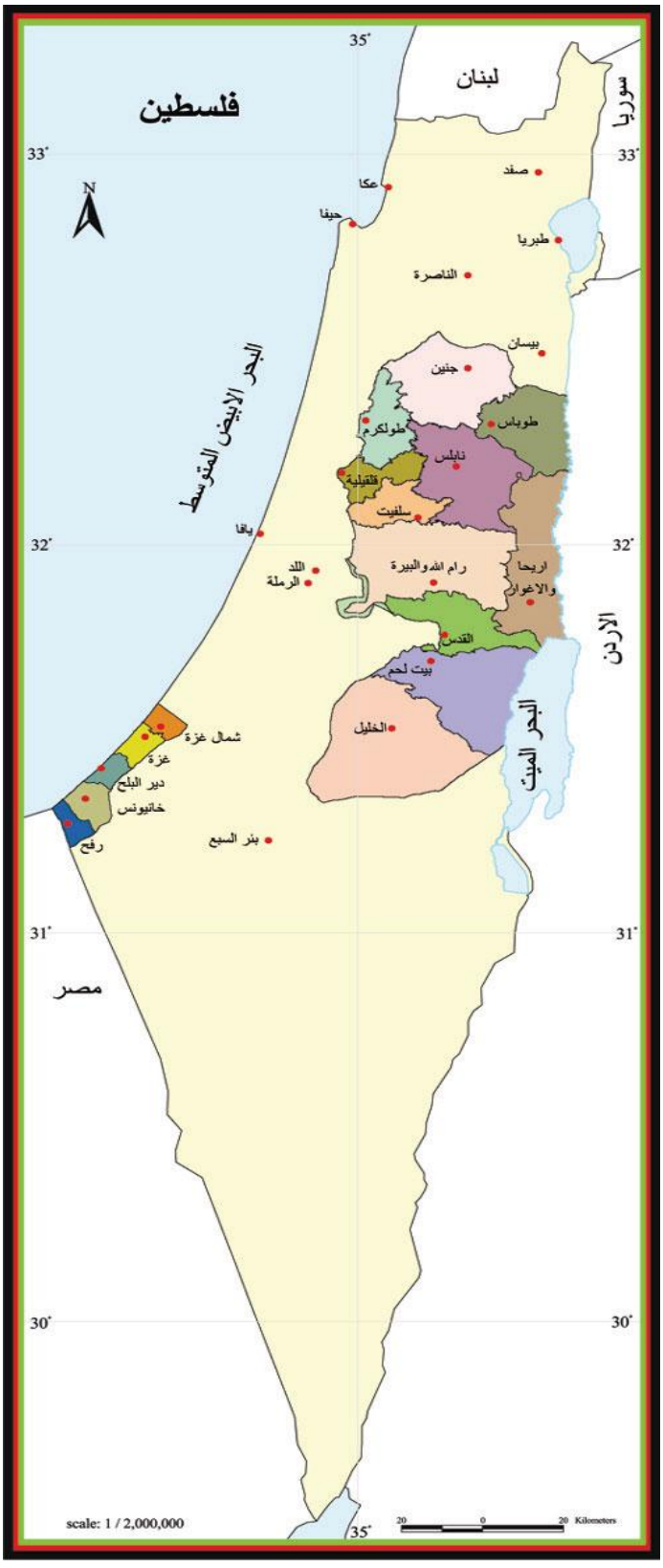
Annexes

Annex (1): Directory of Scientific Research Priorities in Palestine

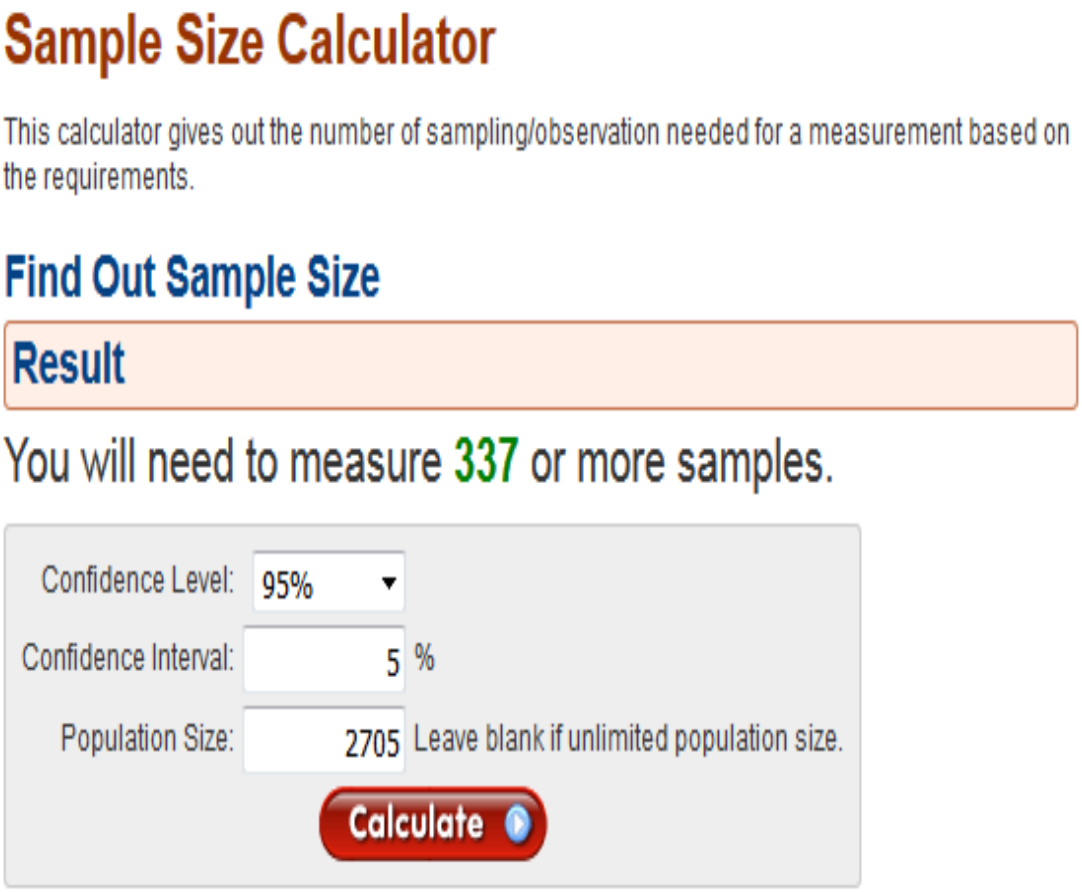
مجال العلوم الطبية والصحية والبيئية

الموضوع	المسائل البحثية حسب أولويتها
إدارة النظام الصحي	تمويل النظام الصحي.
	تطوير نظام المعلومات الصحي.
	تحديد أولويات بناء القدرات الفنية والإدارية للعاملين في القطاع الصحي.
	تقييم برامج التخصص، وبناء القدرات، والتعليم عن بعد.
	تقوية العلاقة بين مزودي الخدمات الصحية المختلفين.
	تحسين النظم الإدارية والرقابية في المؤسسات الصحية.

Annex (2): Palestine – Gaza governorates Map



Annex (3): Sample calculations



Annex (4): The study quantitative instrument-English

Socio-economic variables

1.	**Gender**	**1. ( ) male 2. ( ) female**
2.	**Age**	**( ) years**
3.	**Marital status**	**1. ( ) single 2. ( ) married 3. ( ) divorced/widowed**
4.	**Education level**	**1. ( ) diploma 2. ( ) BSc. 3. ( ) postgraduate**
5.	**Specialty**	**1. ( ) physician 2. ( ) nurse 3. ( ) Lab. Technician** **4. ( ) radiology tech. 5. ( ) physiotherapist** **6. ( ) pharmacist**
6.	**Work place**	**1. ( ) Kamal Adwan 2. ( ) Al-Shifaa 3. ( ) Al-Rantisy** **4. ( ) Al-Aqsa 5. ( ) EGH 6. ( ) Al-Hilal**
7.	**Type of department**	**( )**
8.	**Years of Experience**	**( ) years**
9.	**Position**	**( )**

No.	Statement	S. disagree	Disagree	Neutral	agree	S. agree
Mission , Meaningful Purpose, Goals						
1	Our team mission embodies an interprofessional collaborative approach to patient/client care.					
2	Our team's primary purpose is to assist patients/clients in achieving treatment goals.					
3	Our team's goals are clear, useful and appropriate to my practice.					
4	Our team's mission and goals are supported by sufficient resources (skills, funding, time, space).					
5	All team members are committed to collaborative practice.					
6	Members of our team have a good understanding of patient/client care plans and treatment goals.					
7	Patient/client care plans and treatment goals incorporate best practice guidelines from multiple professions.					
8	There is a real desire among team members to work collaboratively.					
General Relationships						
9	Respect among team members improves with our ability to work together.					
10	Team members care about one another's personal wellbeing.					
11	Socializing together enhances team work effectiveness.					
12	It is enjoyable to work with other team members.					
13	Team members respect each other's roles and expertise.					
14	Working collaboratively keeps most team members enthusiastic and interested in their job.					
15	Team members trust each other's work and contributions related to patient / client care.					
16	Our team's level of respect for each other enhances our ability to work together.					
Team Leadership						
17	Procedures are in place to identify who will take the lead role in coordinating patient/client care.					
18	Team leadership ensures all professionals needing to participate have a role on the team.					
19	Team leadership assures that roles and responsibilities for					

	patient/client care are clearly defined.					
20	Team leadership discourages professionals from taking the initiative to support patient/client care goals.					
21	Team leadership supports interprofessional development opportunities.					
22	Our team leader models, demonstrates and advocates for patient/client-centered best practice.					
23	Our team leader is out of touch with team members' concerns and perceptions.					
24	Our team leader encourages members to practice within their full professional scope.					
25	Our team has a process for peer review.					
General Role Responsibilities, Autonomy						
26	Team members acknowledge the aspects of care where members of my profession have more skills and expertise.					
27	Physicians assume the ultimate responsibility for team decisions and outcomes.					
28	Team members negotiate the role they want to take in developing and implementing the patient/client care plan.					
29	Team members are held accountable for their work.					
30	It is clear who is responsible for aspects of the patient/client care plan.					
31	Physicians usually ask other team members for opinions about patient/client care.					
32	Team members feel comfortable advocating for the patient/client					
33	Each team member shares accountability for team decisions and outcomes.					
34	Team members have the responsibility to communicate and provide their expertise in an assertive manner.					
35	Team members feel limited in the degree of autonomy in patient/client care that they can assume.					
Communication and Information Exchange						
36	Patients/clients concerns are addressed effectively through regular team meetings and discussion.					
37	Our team has developed effective communication strategies to share patient/client treatment goals and outcomes of care.					
38	Relevant information relating to changes in patient/client status or care plan is reported to the appropriate team member in a					

	timely manner.					
39	I trust the accuracy of information reported among team members.					
40	Our team meetings provide an open, comfortable, safe place to discuss concerns.					
41	The patient/client health record is used effectively by all team members as a communication tool.					
Community Linkages and Coordination of Care						
42	Our team has established partnerships with community organizations to support better patient/client outcomes.					
43	Members of our team share information relating to community resources.					
44	Our team has a process to optimize the coordination of patient/client care with community service agencies.					
45	Patient/client appointments are coordinated so they can see multiple providers in a single visit.					
Decision-making and Conflict Management						
46	Processes are in place to quickly identify and respond to a problem.					
47	When team members disagree, all points of view are considered before deciding on a solution.					
48	Disagreements among team members are ignored or avoided.					
49	On our team, the final decision in patient/client care rests with the physician.					
50	In our team, there are problems that regularly need to be solved by someone higher up.					
51	Our team has an established process for conflict management.					
Patient Involvement						
52	Team members encourage patients/clients to be active participants in care decisions.					
53	Team members meet face-to-face with patients/clients cared for by the team.					
54	Information relevant to health care planning is shared with the patient/client.					
55	The patient/client is considered a member of their health care team.					
56	The patient's/client's family and supports are included in care planning, at the patient's request.					

Annex (5): The study quantitative instrument-Arabic

الأخ الفاضل..الأخت الفاضلة

تحية طيبة، وبعد:

الموضوع / تعبئة استبانة

بالإشارة للموضوع أعلاه، أضع بين أيديكم هذه الاستبانة وذلك كأداة بحثية تهدف تعبئتها إلى الحصول على نتائج بعد دراستها وتحليلها للإجابة على أسئلة هذا البحث الصحي كمتطلب للحصول على درجة الماجستير في مسار الإدارة الصحية من جامعة القدس –أبو ديس– والمتعلق بـ :

تقييم العمل التعاوني بين مقدّمي الخدمة في تقديم الخدمات الصحية في المستشفيات الحكومية بمحافظات قطاع غزة

والتي تهدف إلى الوقوف على صورة العلاقة الفنية والإدارية بين مقدمي الخدمة الصحية وتحديد نقاط القوة والضعف، وكذلك الفرص والتهديدات المؤثرة على العلاقة التعاونية بينهم في تقديم الخدمة الصحية المقدّمة للمريض. **علما بأنّ الاستبانة مكوّنة من قسمين:**

أولا: البيانات الشخصية العامة

ثانيا: البنود المتعلقة بتقييم العمل التعاوني

آملا من حضراتكم التعاون الدقيق والموضوعي الذي يخدم الغرض البحثي ونتائجه العلمية التي نرجو أن يكون لها إسهامها في رفعة الوطن عامة وتجويد العمل الصحي خاصة.

ملاحظة: سيتم حفظ البيانات المدوّنة والآراء الموجودة في الاستبيانات بحيث تبقى سريّة بما لا يشكّل أيّ انتهاك لخصوصية المشاركين ضمن العينة البحثية من المستشفيات الحكومية المختارة.

وتفضّلوا بقبول فائق الاحترام والتقدير ،،،

الباحث

إياد إبراهيم شقورة

أولا: البيانات الشخصية العامة

يرجى وضع إشارة (√) في المكان المخصص وفق إجابتك				
١.	**الجنس**	١. ( ) ذكر	٢. ( ) أنثى	
٢.	**العمر**	( ) عاما		
٣.	**الحالة الاجتماعية**	١. ( ) أعزب	٢. ( ) متزوج	٣. ( ) غير ذلك
٤.	**المؤهل العلمي**	١. ( ) دبلوم	٢. ( ) بكالوريوس	٣. ( ) دراسات عليا
٥.	**التخصص**	١. ( ) طبيب بشري، ٢. ( ) تمريض، ٣. ( ) مختبـــرات، ٤. ( ) فني أشعة، ٥. ( ) علاج طبيعي، ٦. ( ) صيدلة		
٦.	**مكان العمل**	١. ( ) م.كمال عدوان، ٢. ( ) م.الشفاء ، ٣. ( ) م.الرنتيسي، ٤. ( ) م. الأقصى، ٥. ( ) م. الأوروبي، ٦. ( ) م. الهلال		
٧.	**القسم الطبي**	( )		
٨.	**سنوات الخبرة في المكان**	( ) عاما		
٩.	**المسمّى الوظيفي**	( )		

ثانيا: تقييم العمل التعاوني

مفاتيم تعبئة التقييم		
١.	**العمل التعاوني**	ويقصد به التعاون بين مقدمي الخدمة الصحية فنيا وإداريا
٢.	**الفريق**	ونعني به مقدمي الخدمة الصحية من المهن الصحية المختلفة
يرجى وضع إشارة (√) في الخانة التي تناسب قناعتك حول البند المطروح		

	الرسالة، الأغراض، والأهداف	معترض بشدة	معترض	محايد	موافق	موافق بشدة
١.	تؤسس رسالة فريقنا لمنهجية تعاون مشترك بين المهن الصحية لتوفير رعاية أفضل للمريض					
٢.	يهدف الفريق لمساعدة المرضى في الوصول لأهداف علاجهم					
٣.	أهداف فريقنا واضحة، مفيدة ومناسبة لما تدربت عليه					
٤.	رسالة الفريق وأهدافه مدعمة بموارد كافية من ناحية المهارات والتمويل والمكان والوقت					
٥.	كلّ أعضاء الفريق ملتزمون بالعمل التعاوني					
٦.	أعضاء فريقنا لديهم فهم جيد لطبيعة الرعاية المقدّمة للمريض وأهداف العملية العلاجية					
٧.	تتضمّن خطط رعاية المريض وأهداف علاجه خطوطا واضحة وهي الأفضل لجميع المهن الصحية					
٨.	هناك رغبة حقيقية لدى أعضاء الفريق للعمل بشكل تعاوني					
	العلاقات العامة	**معترض بشدة**	**معترض**	**محايد**	**موافق**	**موافق بشدة**
٩.	يدعم الاحترام المتبادل بين أعضاء الفريق قدرتهم على العمل سويا					
١٠.	يعنى أعضاء الفريق بأحوال بعضهم البعض					
١١.	يعزز التواصل الاجتماعي تأثير عمل الفريق					
١٢.	من الممتع العمل مع أفراد آخرين ضمن فريق العمل					
١٣.	يحترم أعضاء الفريق أدوار بعضهم البعض وخبراتهم					
١٤.	يحافظ العمل التشاركي الجماعي على الحماسة والاهتمام لدى غالبية أعضاء الفريق					
١٥.	يثق أعضاء الفريق بإسهامات بعضهم البعض فيما يتعلق بالرعاية الصحية للمريض					
١٦.	يزيد مستوى الاحترام لدى فريقنا من قدرة أعضائه على العمل سويّـــا					
	قيادة الفريق	**معترض بشدة**	**معترض**	**محايد**	**موافق**	**موافق بشدة**
١٧.	إجراءات معرفة المسئول عن تنسيق الرعاية الصحية للمريض معروفة في مكان العمل					
١٨.	تؤكد قيادة الفريق على ضرورة أخذ كل عضو دوره في فريق العمل					
١٩.	تتأكد قيادة الفريق من معرفة كل عضو دوره ومسئوليته في عملية الرعاية الصحية للمريض					
٢٠.	قيادة الفريق لا تشجع المهنيّين على المبادرة لدعم أهداف الرعاية الصحية للمريض					

٢١.	تدعم قيادة الفريق فرص التقدم بين المهن الصحية المختلفة					
٢٢.	يناصر قائد فريقنا أفضل ممارسة صحية ترتكز على مشاركة المريض					
٢٣.	قائد فريقنا لا يعنى باهتمامات أعضاء الفريق ومشاعرهم					
٢٤.	يشجع قائد فريقنا أعضاء الفريق للعمل بكل مهنية					
٢٥.	فريقنا لديه آلية واضحة للمراجعة بين أعضائه					
	مسؤوليات الأدوار العامة، واستقلالية العمل	**معترض بشدة**	**معترض**	**محايد**	**موافق**	**موافق بشدة**
٢٦.	يعرف أعضاء الفريق جوانب الرعاية الصحية حيث زملاء مهنتي يمتلكون المهارة والخبرة.					
٢٧.	يتولى الأطباء المسؤولية الكبرى في قرارات الفريق ومخرجاته					
٢٨.	يفاوض أعضاء الفريق من أجل القيام بدورهم المفضل في تطوير ودعم خطة الرعاية الصحية للمريض					
٢٩.	يأخذ أعضاء الفريق على عاتقهم مسئولية عملهم					
٣٠.	المسئول عن جوانب الخطة الصحية للمريض واضح و معروف					
٣١.	يسأل الأطباء عادة بقية أعضاء الفريق عن آرائهم في الخدمة الصحية المقدمة للمريض					
٣٢.	يشعر أعضاء الفريق بالراحة وهم يناصرون المريض					
٣٣.	يشارك كل عضو في الفريق في تحمّل المسئولية في قرارات الفريق ومخرجاته					
٣٤.	أعضاء الفريق لديهم الصلاحيات للتعامل و زيادة خبراتهم بطريقة حازمة					
٣٥.	يشعر أعضاء الفريق بمحدودية استقلالهم خلال تقديمهم الرعاية الصحية للمريض عمّا هو مفترض					
	التعامل وتبادل المعلومات	**معترض بشدة**	**معترض**	**محايد**	**موافق**	**موافق بشدة**
٣٦.	يتم معالجة اهتمامات المرضى بفاعلية من خلال تعاون الفريق ونقاشاته					
٣٧.	يطوّر أعضاء فريقنا استراتيجيات تواصل فعالة للتشارك في الأهداف العلاجية للمريض ومخرجات رعايته الصحية					
٣٨.	تسجّل المعلومات المرتبطة بالتغيرات في حالة المريض أو خطة علاجه لعضو الفريق المناسب وفي الوقت المطلوب					
٣٩.	أثق بدقة المعلومات المتداولة بين أعضاء الفريق					
٤٠.	توفر لقاءات فريقنا مكانا مفتوحا، مريحا وآمنا للمناقشات المهمّة					
٤١.	يستخدم سجلّ المريض الطبي بفاعلية بواسطة أعضاء الفريق كأداة للتواصل					
	الروابط المجتمعية وتنسيق الرعاية الصحيّة	**معترض بشدة**	**معترض**	**محايد**	**موافق**	**موافق بشدة**
٤٢.	أنشأ فريقنا شراكة مع منظمات المجتمع المدني من أجل مخرجات أفضل لصالح المرضى					

٤٣.	يشارك أعضاء فريقنا في المعلومات المرتبطة بالمصادر المجتمعية					
٤٤.	يحرص فريقنا على رفع درجة التنسيق مع وكالات الخدمة المجتمعية					
٤٥.	يتم حجز المواعيد للمرضى بحيث تمكنهم من مراجعة أكثر من طبيب في زيارة واحدة					
	اتخاذ القرارات وإدارة الصّراع	**معترض بشدة**	**معترض**	**محايد**	**موافق**	**موافق بشدة**
٤٦.	الآليات جاهزة من أجل سرعة تعريف المشكلة والاستجابة لها					
٤٧.	في حال الاختلاف، جميع وجهات نظر الأعضاء تؤخذ بعين الاعتبار قبل حلّ الإشكال					
٤٨.	انعدام التوافق بين أعضاء الفريق يتم تجاهله أو تجنبه					
٤٩.	في فريقنا، القرار النهائي في عملية الرعاية الصحية للمريض يقع على عاتق الطبيب					
٥٠.	تحصل في داخل فريقنا مشاكل منتظمة تحتاج حلّا من شخص في مستوى إداري أعلى					
٥١.	فريقنا لديه آليات مقررة لإدارة الصراعات حال حدوثها					
	مشاركة المريض في الرعاية الصحيّة	**معترض بشدة**	**معترض**	**محايد**	**موافق**	**موافق بشدة**
٥٢.	يشجع أعضاء الفريق المرضى ليكونوا مشاركين فاعلين في قرارات الرعاية الصحية					
٥٣.	يلتقي أعضاء الفريق مع المرضى المطلوب رعايتهم صحيا وجها لوجه					
٥٤.	يطّلع المريض على المعلومات المرتبطة بخطة رعايته الصحية					
٥٥.	يعتبر أعضاء الفريق المريض عضوا في الفريق الصحي					
٥٦.	عائلة المريض ودعمها مكفول ضمن الخطة الصحية لرعاية المريض بناء على رغبته					

Annex (6): Interviews and Focus group schedule

Interview and Focus Group Dissuasion on IPC – Semi-structured Schedule

Q1: To which extent, are the vision, mission and goals regarding health process clear for the various healthcare providers?

Q2: How do relationships seem to be among healthcare providers?

Q3: Is there recognition of the fact that the doctor is the team leader? Please explain that for me.

Q4: Please, tell me about the physician as a team leader and his work on leaving space for other health service providers to perform their required roles?

Q5: When there is a conflict, are there clear procedures for resolving it and to which extent?

Q6: What is the nature of relationship with the community agencies in the field of information exchange and getting support?

Q7: Is it easy to exchange information through the patient's medical record? Is there mutual trust among members of the medical team regarding information exchange?

Q8: Are patients considered to be an active partner within the team and do you take their rights in consideration? Please explain for me.

Q9: What are the main enablers and barriers to IPC at your place of work?

Annex (7): Collaborative Assessment Scale (CAS)

Assessment Scale for Collaboratives

Assessment/Description	Definition
1.0 Forming team	Team has been formed; target population identified; aim determined and baseline measurement begun.
1.5 Planning for the project has begun	Team is meeting, discussion is occurring. Plans for the project have been made.
2.0 Activity, but no changes	Team actively engaged in development, research, discussion but no changes have been tested.
2.5 Changes tested, but no improvement	Components of the model being tested but no improvement in measures. Data on key measures are reported.
3.0 Modest improvement	Initial test cycles have been completed and implementation begun for several components. Evidence of moderate improvement in process measures.
3.5 Improvement	Some improvement in outcome measures, process measures continuing to improve, PDSA test cycles on all components of the Change Package, changes implemented for many components of the Change Package.
4.0 Significant improvement	Most components of the Change Package are implemented for the population of focus. Evidence of sustained improvement in outcome measures, halfway toward accomplishing all of the goals. Plans for spread the improvement are in place.
4.5 Sustainable improvement	Sustained improvement in most outcomes measures, 75% of goals achieved, spread to a larger population has begun.
5.0 Outstanding sustainable results	All components of the Change Package implemented, all goals of the aim have been accomplished, outcome measures at national benchmark levels, and spread to another facility is underway.

2

Institute for Healthcare Improvement
Boston, Massachusetts, USA

Copyright © 2004 Institute for Healthcare Improvement

Annex (8): Ethical approval of Helsinki Committee

المجلس الفلسطيني للبحث الصحي

Palestinian Health Research Council

تعزيز النظام الصحي الفلسطيني من خلال مأسسة استخدام المعلومات البحثية في صنع القرار

Developing the Palestinian health system through institutionalizing the use of information in decision making

Helsinki Committee

For Ethical Approval

Date: 03\08\2015 **Number:** PHRC/HC/49/15

Name: **الاسم:** اياد ابراهيم شقورة

We would like to inform you that the committee had discussed the proposal of your study about:

نفيدكم علماً بأن اللجنة قد ناقشت مقترح دراستكم حول:-

Assessment of health care providers' collaboration in the provision of health services at governmental hospitals-Gaza governorates

The committee has decided to approve the above mentioned research. Approval number PHRC/HC/49 /15 in its meeting on 03/08/2015

و قد قررت الموافقة على البحث المذكور عاليه بالرقم والتاريخ المذكوران عاليه

Signature

Member **Member**

Chairman

Genral Conditions:-

٣١. Valid for 2 years from the date of approval.
٣٢. It is necessary to notify the committee of any change in the approved study protocol.
٣٣. The committee appreciates receiving a copy of your final research when completed.

Specific Conditions:-

The subject was approved following the World Medical Association Declaration of Helsinki-Ethical principles for medical research involving human subjects, adopted by the 18th World Medical Association General Assembly, Helsinki, Finland, June 1964 and amended by the 59th WMA General Assembly, Seoul, Korea, October 2008.

E-Mail:pal.phrc@gmail.com

Gaza - Palestine غزة - فلسطين

شارع النصر - مفترق العيون

Annex (9): Official approval letter from the general directorate of human resource management and development

The Palestinian National Authority
Ministry of Health
Directorate General of Human Resources Development

السلطة الوطنية الفلسطينية
وزارة الصحة
الإدارة العامة لتنمية القوى البشرية

الرقم :.....

التاريخ:2015/11/18م

الأخ / د. عبد اللطيف الحاج المحترم،،،

مدير عام المستشفيات

السلام عليكم ورحمة الله وبركاته،،،

الموضوع/ تسهيل مهمة باحث

بخصوص الموضوع أعلاه، يرجى تسهيل مهمة الباحث/ إياد إبراهيم شقورة الملتحق ببرنامج ماجستير الصحة العامة – مسار الإدارة الصحية – كلية الصحة العامة – جامعة القدس في إجراء بحث بعنوان :-

"Assessment of Health Care Providers Collaboration in the Provision of Health Services at Governmental Hospitals-Gaza Governorates "

حيث الباحث بحاجة لتعبئة استبانه وإجراء مقابلات وعقد مجموعات بؤرية مع عدد من مقدمي الخدمات الصحية في المستشفيات الحكومية، بما لا يتعارض مع مصلحة العمل وضمن أخلاقيات البحث العلمي ودون تحمل الوزارة أي أعباء أو مسئولية.

وتفضلوا بقبول التحية والتقدير،،،

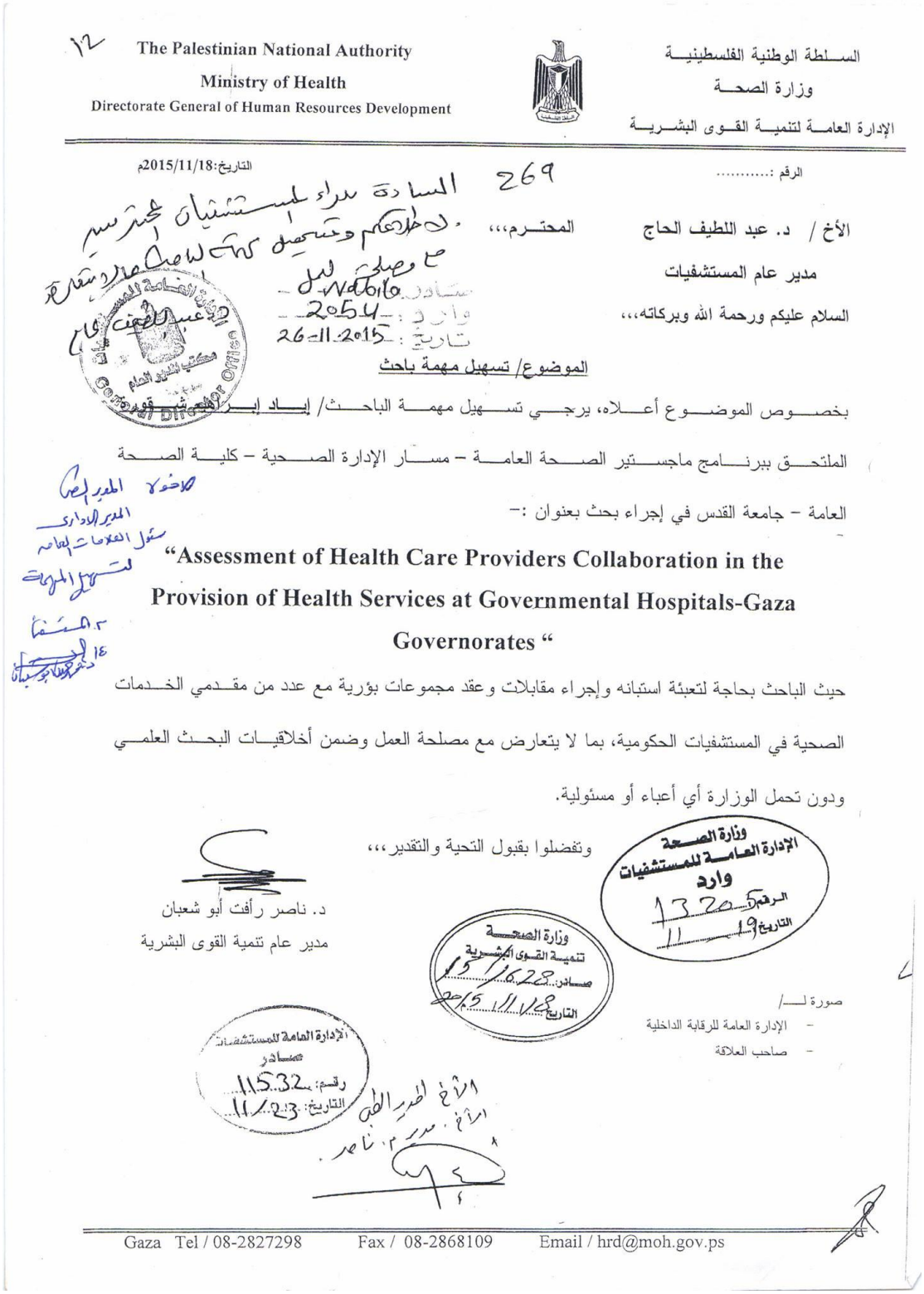
د. ناصر رأفت أبو شعبان
مدير عام تنمية القوى البشرية

وزارة الصحة
تنمية القوى البشرية
صادر: 1628
التاريخ 15/11/15

صورة لـــ/
الإدارة العامة للرقابة الداخلية
صاحب العلاقة

Gaza Tel / 08-2827208 Fax / 08-2868109 Email / hrd@moh.gov.ps

Annex (10): Official approval letter from the general directorate of hospitals - MOH



12

The Palestinian National Authority
Ministry of Health
Directorate General of Human Resources Development

السلطة الوطنية الفلسطينية
وزارة الصحة
الإدارة العامة لتنمية القوى البشرية

الرقم :..... 269

التاريخ:2015/11/18م

السادة مدراء المستشفيات المحترمين
لاتخاذ الاجراءات وتسهيل مهمة الباحث
مع فائق الاحترام

صادر: 2054
وارد:
تاريخ: 26-11-2015

الأخ / د. عبد اللطيف الحاج
مدير عام المستشفيات
المحترم،،،

السلام عليكم ورحمة الله وبركاته،،،

الموضوع/ تسهيل مهمة باحث

بخصوص الموضوع أعلاه، يرجى تسهيل مهمة الباحث/ إياد إبراهيم شبير قويدر الملتحق ببرنامج ماجستير الصحة العامة – مسار الإدارة الصحية – كلية الصحة العامة – جامعة القدس في إجراء بحث بعنوان :-

"Assessment of Health Care Providers Collaboration in the Provision of Health Services at Governmental Hospitals-Gaza Governorates "

حيث الباحث بحاجة لتعبئة استبانه وإجراء مقابلات وعقد مجموعات بؤرية مع عدد من مقدمي الخدمات الصحية في المستشفيات الحكومية، بما لا يتعارض مع مصلحة العمل وضمن أخلاقيات البحث العلمي ودون تحمل الوزارة أي أعباء أو مسئولية.

وتفضلوا بقبول التحية والتقدير،،،

وزارة الصحة
الإدارة العامة للمستشفيات
وارد
الرقم 1320
التاريخ 19/11

د. ناصر رأفت أبو شعبان
مدير عام تنمية القوى البشرية

وزارة الصحة
تنمية القوى البشرية
صادر 1528
التاريخ 2015/11/18

الإدارة العامة للمستشفيات
صادر
رقم: 11532
التاريخ: 11/23

صورة لـــ/
- الإدارة العامة للرقابة الداخلية
- صاحب العلاقة

Gaza Tel / 08-2827298 Fax / 08-2868109 Email / hrd@moh.gov.ps

تقييم واقع العمل التعاوني بين مقدمي الخدمة الصحية في المستشفيات الحكومية بمحافظات غزة

إعداد: إياد إبراهيم شقورة

إشراف: د. رضوان محمود بارود

ملخّص الدراسة

بصورة عامة، إنّ هناك زيادة متنامية في الاهتمام بدراسة العمل التعاوني الشترك بين المهن الصحية حيث عرضت الكثير من الدراسات السابقة آثارا إيجابية لذلك على مستوى المرضى، مقدمي الخدمة الصحية أنفسهم وعلى صعيد النظام الصحي كذلك. لقد أصبح التعاون المشترك بين مقدمي الخدمة الصحية ضمن أولويات منظمة الصحة العالمية وكذلك البحث العلمي والصحي في فلسطين. ومن هنا هدفت هذه الزيارة إلى دراسة واقع العمل التعاوني بين مقدمي الخدمة الصحية في المستشفيات الحكومية بمحافظات غزة.

اعتمدت هذه الدراسة المقطعية على طريقة التثليث الكمي والكيفي في جمع البيانات. وقد كانت محصلة المشاركين في الدراسة بالطريقة الكمية ٣٤٠ مشاركا تمّ اختيارهم بطريقة عشوائية مع المحافظة على مناسبتهم لمعايير الاختيار وقبولهم للمشاركة في الدراسة، وقد كانت نسبة الاستجابة ٩٥,٧%. هذا وقد تمّ عقد سبع مقابلات و ثلاث مجموعات بؤرية ناقش فيها ثلاثون من مقدمي الخدمات الصحية آراء مختلفة لإثراء النقاش وتعميق النتائج.

بالنظر إلى الطريقة الكمية في جمع البيانات، فقد اعتمدت على استبانة يقوم المشارك بتعبئتها بنفسه وأسهمت نتائجها في إعداد الأسئلة الخاصة بالطريقة الكيفية. استخدم الباحث أداة تقييم العمل التعاوني والتي تحوي ثماني مجموعات تقيس كل واحدة منها سلوكا معينا له علاقة بالعمل التعاوني.

أظهرت النتائج أن ٥٩,١٢% من المشاركين كانوا ذكورا، و٧٩,٧% منهم كانوا متزوجين، وقرابة نصف العينة يعملون في مهنة التمريض بينما ٣٠,٦% كانوا أطباء، و٥,٦% من فنيي المختبرات، و٤,٧% صيادلة، ٣,٨% من فنيي الأشعة، و ٣,٢% من أخصائيي العلاج الطبيعي. كذلك فإن ٤٠,٣% من مقدمي الخدمة الصحية في العينة كانوا يعملون بمستشفى الشفاء، ٢٢,٤% في مستشفى غزة الأوروربي، ١٣,٨% في مستشفى شهداء الأقصى، ١٠,٩% في مستشفى كمال عدوان، ٧% في مستشفى الرنتيسي للأطفال، و ٥,٦% في مستشفى الهلال الإماراتي للنساء والتوليد. العدد الأكبر من المشاركين كان يعمل في الأقسام المفتوحة وأغلبهم لديهم الخبرة التي تراوحت بين ١-١٥ سنة، وكان أكثر من الثلثين بلا أي مواقع إدارية في مستشفياتهم.

أظهر المشاركون تفاوتا واضحا في استجابتهم للبنود المختلفة والتي بلغ عددها ٥٦ بندا موزعة على المجموعات الثانية ضمن الاستبانة. برزت العلاقات العامة بين مقدمي الخدمة الصحية كأعلى متوسط بين المجموعات (٣,٩٤٣)، بينما كان التواصل مع مؤسسات المجتمع المدني لتنسيق الخدمة المقدمة أدنا حيث بلغ المتوسط (٣,١٨١) وهذا يرجع إلى مركزية العمل في هذا الإطار بلجنة مسؤولة دون تفويض للمستويات الإدارية الأدنى.

أمّا عن المجموعة المتعلقة بالرسالة والأهداف فقد ظهرت متحققة بنسبة ٧٤,٥% وهو مما يعزى للتباين في الأولويات بين أهداف الفريق من جهة وبين أهداف المهن المختلفة أو الشخصية من جهة أخرى. أمّا عن بقية المجموعات فقد كانت على النحو التالي: احتواء المريض (٦٨,٩٦%)، اتخاذ القرارات وإدارة الصراعات (٦٨,٩٦%)، قيادة الفريق (٦٩,٨٨%)، علاقة العمل مع الزملاء وتبادل المعلومات (٧٠,٨%) و وضوح الأدوار وتحمل المسؤوليات (٧١,٦٦%).

أظهرت الدراسة فروقا ذات دلالة إحصائية لصالح الجنس، العمر، المهنة، والموقع الإداري كعوامل مؤثرة على العمل التعاوني بين مقدمي الخدمة الصحية. جميع المجموعات الثمانية تأثرت بالعوامل المستقلة المختلفة عدا مجموعة العلاقات العامة. وبإجراء بعض الاختبارات الإحصائية تبيّن أنّ الذكور وأصحاب الخبرة من مقدمي الخدمة الصحية كان وضوح الأدوار وتحمل المسؤوليات لديهم أفضل من غيرهم. كذلك فإنّ كبار السنّ وأصحاب المواقع الإدارية عموما ومقدمو الخدمة في مستشفى الهلال الإماراتي على وجه الخصوص أكثر قدرة على اتخاذ القرارات وإدارة الصراعات. من المفارقات التي كانت موجودة هي التناسب العكسي بين المستوى التعليمي و درجة الاهتمام بالمريض، بينما لم يكن غريبا أن يكون الممرضون الأكثر إيجابية في هذا المضمار. أما بخصوص التواصل بين مقدمي الخدمة الصحية وتبادل المعلومات فقد أبدى الممرضون تجاوبا أكبر من الصيادلة فيما يتعلق بهذا الأمر وقد توافق ذلك مع دراسات سابقة وذلك يرجع في الغالب إلى طبيعة العمل الخاصة بكل مهنة. هذا وقد أبدى مقدمو الخدمة من أصحاب الخبرة الطويلة انطباعا أفضل فيما يخص التعاون مع منظمات المجتمع المحلي لأجل تنسيق خدمة صحية أفضل. وقد اتضحت من خلال المقابلات والمجموعات البؤرية مجموعة من المعينات وكذلك المعيقات للعمل التعاوني بين مقدمي الخدمة الصحية في المستشفيات الحكومية بالإضافة إلى إثراء النتائج الواردة من خلال التحليل الكمي للبيانات. ومن الجدير بالذكر أنّ النتائج المستخلصة من هذه الدراسة قد توافقت في بعضها مع بعض الدراسات العالمية بينما تعارضت مع بعضها الآخر.

وختاما فإنه يمكن القول بأنّ العمل التعاوني يعدّ حديثا بالنسبة لمقدمي الخدمة الصحية في المستشفيات الحكومية بمحافظات غزة وعليه فإنّ التدخلات التي ينبغي عملها لأجل ضمان التطبيق المستقبلي لهذا النوع من العمل من المفترض أن تكون على مستويات عدة لتشمل تدشين أنظمة وقوانين ملزمة وموضحة لطبيعة العلاقة بين أعضاء الفريق الواحد، وكذلك توفير متطلبات إنجاحه على الصعيد المؤسسي، مع الدعم المتواصل للأفراد للارتقاء اللازم بقدراتهم ومهاراتهم للقدرة على القيام بالدور المطلوب منهم ضمن الفريق، إضافة إلى التركيز على دور المريض كحجر زاوية في العملية الصحية والتعامل معه كعضو أساس في الفريق الصحي.