

Bridging Disciplines in Healthcare: Enhancing Patient Outcomes Through Education, Public Health, and Clinical Practices

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ABSTRACT

Research studies from middle eastern countries state that there is a global pressure to implement the practices of interprofessional and interdisciplinary practices to support the establishment of effective health care system for the improvement in health of general people and increase in the outcomes of patients. Since the last few years or may be in the final year of 20th century interprofessional was not the part of educational curriculum but as the need occurred in last 10 years or so this process of interprofessional and interdisciplinary approach has been included in the curriculum and the same is mandatory for the learners to seek. It is evident from the international practice in USA and Europe that the collaborative skills have broken the international boundaries and the healthcare workers are practicing the same in more appropriate form. In order to evaluate the scenario researcher has chosen this topic, study is based on primary data and ANOVA one way is used to analyze the data collected. SPSS Ver. 22.0 is used as statistical platform.

KEYWORDS: Interdisciplinary approach, Healthcare services, Saudi Arabia.

1. Introduction

In the last few decades, as observed in the field of health care system, a global interest have been developed for interdisciplinary collaboration of healthcare

services. It is not so that this is a new area of research but then again in the light of new facts and latest practices there is always a need to evaluate the present scenario and future practices. Then on the other hand, the demography of most of the middle east countries is also changing rapidly and with this changing demography the requirement of improved health care services is also changing. Such changes call for the organizations to work hand in hand to make the system more cost effective and more flexible so that all the groups in the society are equally benefitted. Now is the time to collaborate the groups working in the field of healthcare and optimize the health related outcomes and provide better cure to the patients. Batalden et al (2007); Reeves et al (2012) and Wagner et al (2020) stated that collaborations of various disciplines can acknowledge and improve the margin of clinical errors and provide a better quality of healthcare services to the patients.

As per the policy guidelines issued by World Health Organization WHO (1988 to 2020) also acclaims the collaborative system of healthcare and stated that such strategy to manage the global health workforce crisis. The objective of these guidelines issued by WHO were centered towards providing services to clients as and when required in a professional manner and to provide all the opportunities to related stakeholders in this regard. This call for an agreement for the argument to result in a high quality health services of collaborative nature and development of professionals via sharing of knowledge with fellow professionals, this can be done by interpersonal learning and arrangement of the same at the educational level.

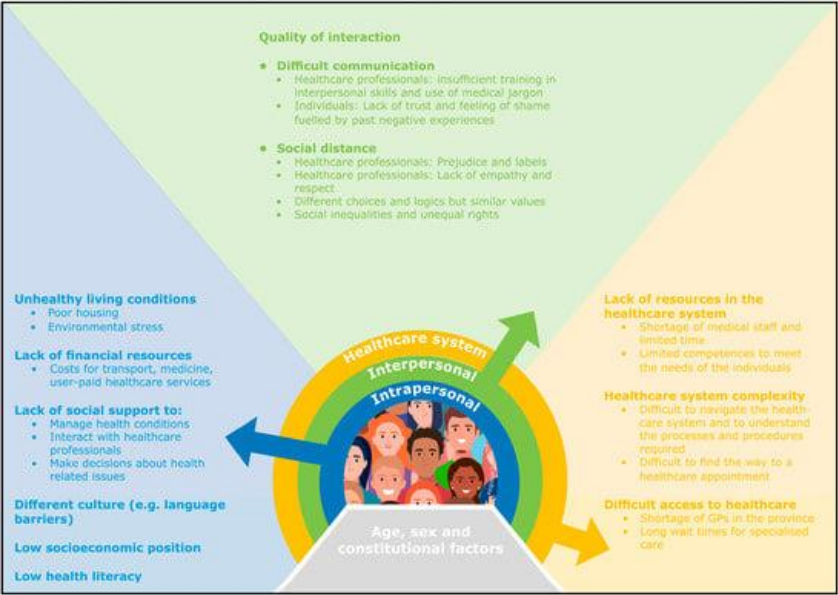
In 2010, the Lancet Commission published a vision and joint strategy for the future of Inter Disciplinary Approach. They published information on the ability to respond to rapid changes in healthcare through extensive competition in professional training. Their main argument was that healthcare needs to be reorganized to ensure coordination and safety in care Frenk et al (2010). In response to the Inter Disciplinary Approach calls, many countries have developed collaborative working processes to identify and clarify key resources for collaboration in healthcare. Collaborative learning outcomes need to meet these guidelines to prepare students for collaborative practice. Table 1 describes four different task designs Rogers et al (2016).

Hence it can be stated that from the evidences from middle eastern countries there is a global pressure to implement the practices of interprofessional and interdisciplinary practices to support the establishment of effective health care system for the improvement in health of general people and increase in the outcomes for the clients. Since the last few years or may be in the final year of 20th century interprofessional was not the part of educational curriculum but as the need occurred in last 10 years or so this process of interprofessional and interdisciplinary approach has been included in the curriculum and the same is mandatory for the learners to seek. It is evident from the international practice in USA and Europe that the collaborative skills have broken the international boundaries and the healthcare workers are practicing the same in more appropriate form.

This situation, which begins with the interaction between the healthcare professionals and their roles towards the patient, can continue from “many” to “intermediate” to “changed” Weaver et al (2018); Kvarnström (2020). The

interactional purpose of “intermediate” contrasts with the more “multiple” that indicates the learning and working of inequality Thistlethwaite (2012). There is also a difference between the use of the words “professional” and “discipline,” which are sometimes used interchangeably with the words mentioned above. One difference between these two terms is that the word “discipline” is different from the word “profession,” as these disciplines can be considered academic disciplines as well as specialists in a task. For many years, the interprofessional team or partnership was used to describe the relationship between physicians, but is now outdated. The use of the word “discipline” is problematic because a specialty such as medicine has many disciplines within its own specialty; this can be problematic when words are used to describe particular groups with different misconceptions. Multidisciplinary teams are often described as hierarchically structured, with the expertise of team members being more important than that of other team members. Partners often make decisions autonomously and often follow a liaison path without room for discussion Engel et al (2013).

Professional learning and interdisciplinary learning goes hand in hand, at the international level many terms have been coined in this regard. Like acquisition and transfer of standards and learning from the experiences of fellow workers, this can be done both ways i.e., online and offline. This process of sharing or transfer can be seen as movement of knowledge from one place to another or from one person to another. Then comes the process of acquisition where the knowledge from one place is acquired and used in a different manner at another place, for example learning of a medical procedure in one country and exercising the same in another country. This is not an easy task but can be learned and modified by a given healthcare professional.



Source: Gitte et al (2023)

Figure 1: Inter and Intra-personal Knowledge Sharing in Healthcare

Then comes the system of construction and participation, which is generally termed as situated learning, this kind of learning is understood in a contextual form and not the part of existing process. The above said procedure can change as per the changes brought in context of learning and practicing. Here professional learning can also be added to the system.

Then there is another concept of practice turn, that can change the overall scenario of professional learning and combined learning, in this process people from different disciplines are combined and various procedures are discussed, people give their opinion on the system and suggest changes for improvement of the same. In this process some of the new and unique medical procedures are developed and even the test cases are discussed for the betterment of the same.

This present study will present a view of interdisciplinary and inter-professional approached and impact of the same on the present apprehensions and future prospects of healthcare system in Saudi Arabia.

2. Review of Literature

Wilson et al (2023) worked on the main characteristics of inter-disciplinary and interprofessional approaches in health care system and stated that there is a legitimate amount of gap in the educational system of different countries i.e. some of the countries are already in the process of knowledge sharing within or outside the same and some of them are having high end system for this process and do not want to share the same with other fellow health care professionals. This can be viewed as a policy matter and the respective countries should become the party to, may be limited, medical procedures and should try to improve the scenario to a certain extent.

Page et al (2021) worked on the interprofessional training wards, the study was based on many of the educational institution of Middle East and USA. The researcher included many of the medical and healthcare related activities and summarized a list of activities that can be shared with others. They also stated that merely sharing of knowledge is not enough but there is a need to share the procedures, equipment handling and level of respective automation required for the same. The researchers also stated that for such kind of knowledge sharing requires a conducive environment and for this a clear policy initiative is required to be framed.

Tonnesen et al (2023) Businesses and organizations have discussed the reasons for the difficulties in implementing collaborative strategies, also opined by Doyle et al (2008); Bell et al. (2014) and wilhemsson et al (2011) suggest that factors such as rigid job hierarchies and differential status between men and women hinder the success of IPC. Only a few studies have shown the role of power and gender issues in education and particularly in IPTW. The overall phenomenon of inter-disciplinary approach is a difficult process to be adopted and even the system of collaborating with other parallel systems is complicated. But looking forward to the future need of the collaboration and the types of ailments hitting the humanity, this is very important task and needed to be done at a war footage. There is an ongoing debate

about the use of research methods in educational research and practice in order to bring the procedure in reality.

Koschorke et al (2021) The socio-material approach can be seen as a boundary to thinking beyond the person who receives and transmits knowledge. Rather, these teachings show how learning occurs in the relationship between people and their physical environment and how it relates to knowledge problems. Professionals do not just use knowledge; they must also participate in the production and sharing of new knowledge. Knowledge acquisition and knowledge strategies are complex, and practice and work are changing due to changes in the preparation and responsibilities of professionals. The interest of this article is in collaborative processes occurring in education and health care, and will be explored further.

Objective

The main objective of the study is to assess the process of knowledge sharing in closely knit procedures and to comment on the ways of knowledge sharing among professionals, as far as health care practices are concerned.

Hypothesis

H₀: The usage of Inter-disciplinary approach is having significant impact on the improvement of health care services and patient outcome.

H₁: The usage of Inter-disciplinary approach does not exert any impact on the improvement of health care services and patient outcome.

3. Research Methodology

Sources of data

- The researcher had mainly considered primary data for the processing this research study. As the motive of the study was to find the impact of inter-disciplinary approach on improvement of healthcare services in the selected hospitals of Saudi Arabia.
- By the virtue of topic, it was necessary to collect the information first hand from the respondents and primary data became handy to support the process.
- Then on the other hand some of the modalities of this present study were also formulated in the light of primary data i.e., some interviews, opinions and reviews from the selected doctors, medical students' other healthcare workers to find the workability of the topic in the present scenario.
- To a certain extent secondary data was used in the process i.e. in order to frame the hypothesis, formulation of research objective, literature review part, hypothesis formulation, etc.
- In order to gain further knowledge about the topic at hand the researcher touched some of the popular sources of secondary data as stated below:
- Some research journals from the relevant area of study,

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- Some articles from national and international papers
- Some reports available over internet
- Student's Ph.D. thesis, etc.

Sample Selection

The researcher had considered a fair representation of the population as sample, the total sample units considered were 250. This sample constitutes healthcare workers from the selected Hospitals of Saudi Arabia. In total 7 hospitals were approached and the respective number of legitimate healthcare workers was around 3117. For the ease of approach, data analysis and preparing statistics 250 were considered as sample.

Tools of Data Collection

Researcher has prepared a detailed questionnaire to contact the respective healthcare workers from the selected hospitals of Saudi Arabia and the mode of contact was face to face. In order to save the time and get precise responses multiple health workers were contacted at a time i.e., in a group of 5 to 7.

Statistical Measure

- ANOVA (One Way)

Tools of Data Processing

- SPSS Ver. 22.0

Data Analysis and Interpretation

Summary of ANOVA Test Results

On the Basis of Age	F	Sign
My department is open to interdisciplinary approaches	.155	.426
Some important procedures are consulted with external experts	.688	1.559
Handling interdisciplinary approach was the part of our training	.660	.577
Systems and equipment in my department are capable enough to cater external experts	.365	.478
Medical procedures in my department are perfect	.889	.446
In some cases, my professional role is altered after the report of external expert	.408	1.005
Most of the times, external experts are doctors (Specialists)	3.445	3.017
The patient outcomes have increased after applying interdisciplinary approach	.316	.814
There are some negative changes as well	.921	.000
I personally feel benefitted.	1.371	.070
On the Basis of Gender		
My department is open to interdisciplinary approaches	2.097	3.114
Some important procedures are consulted with external experts	.534	.711
Handling interdisciplinary approach was the part of our training	.983	.817
Systems and equipment in my department are capable enough to cater external experts	.885	1.112
Medical procedures in my department are perfect	1.117	.348
In some cases, my professional role is altered after the report of external expert	1.443	1.519
Most of the times, external experts are doctors (Specialists)	3.445	1.017
The patient outcomes have increased after applying interdisciplinary approach	.316	.814
There are some negative changes as well	1.815	.021
I personally feel benefitted.	1.812	1.901
On the Basis of Cadre (Doctor, Nurse, etc.)		

My department is open to interdisciplinary approaches	.209	.890
Some important procedures are consulted with external experts	.579	.629
Handling interdisciplinary approach was the part of our training	.993	.396
Systems and equipment in my department are capable enough to cater external experts	.593	.620
Medical procedures in my department are perfect	.456	.503
In some cases, my professional role is altered after the report of external expert	1.111	.344
Most of the times, external experts are doctors (Specialists)	3.445	3.112
The patient outcomes have increased after applying interdisciplinary approach	.316	.414
There are some negative changes as well	17.921	.000
I personally feel benefitted.	2.371	.070
On the Basis of Experience in current Job		
My department is open to interdisciplinary approaches	.082	.970
Some important procedures are consulted with external experts	.360	.782
Handling interdisciplinary approach was the part of our training	1.355	.256
Systems and equipment in my department are capable enough to cater external experts	.660	.577
Medical procedures in my department are perfect	.313	.416
In some cases, my professional role is altered after the report of external expert	.503	.680
Most of the times, external experts are doctors (Specialists)	3.445	.017
The patient outcomes have increased after applying interdisciplinary approach	.316	.814
There are some negative changes as well	17.921	.000
I personally feel benefitted.	2.371	.070
On the Basis of Number of Specialists		
My department is open to interdisciplinary approaches	7.056	.000
Some important procedures are consulted with external experts	2.923	2.034
Handling interdisciplinary approach was the part of our training	1.705	1.165
Systems and equipment in my department are capable enough to cater external experts	10.697	.000
Medical procedures in my department are perfect	2.371	2.070
In some cases, my professional role is altered after the report of external expert	2.459	2.062
Most of the times, external experts are doctors (Specialists)	.173	.215
The patient outcomes have increased after applying interdisciplinary approach	.779	.606
There are some negative changes as well	.646	.586
I personally feel benefitted.	4.798	.003

Interpretation

As far as the demographic characteristics are concerned, age, income, gender and education are taken into consideration. In case of ANOVA test the thumb rule applies accordingly, 'If the F value higher than Sign value for all the variables then the hypothesis is rejected or else accepted. '

On the basis of age most of the respondents were agreed to the point in question, as because the difference in F and Sign. value is not significant. Except training on interdisciplinary approach (F value .688 and Sign. value .577), perfection in present system (F value .889 and Sign. value .446), negative changes (F value .921 and Sign. value .000) and personal benefit (F value 1.371 and Sign. value .070); the result are positive. Hence it can be stated that in terms of age of the respondents they were mostly agreed to the point in question.

Then on the basis of gender there is slight variation in the results i.e., training (F value .983 and Sign. value .817), perfection of own department (F value 1.117 and Sign. value .348), doctors as external experts (F value 3.445 and Sign. value 1.017) and negative changes (F value 1.812 and Sign. value .021) mostly the results are positive. This shows that on the basis of gender (mostly males) respondents are agreed to the point in question and stated that the interdisciplinary approach is a

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positive exercise.

Then some of the respondents provided negative responses on the basis of their respective cadre i.e. doctors, nurses, allied health workers, etc. here for all the cases results are positive enough for the point in question. Though there are some negative responses but then again, the number of positive responses is more. This may be because of the reason that the doctors and nurses do understand the applicability of interdisciplinary approach and the benefits thereof. Then on the basis of experience in the current job and number of specialists in the department most of the respondents were agreed to the point in question and the number of negative responses was minimum.

4. Results

On the basis of above analysis and interpretation it can be stated that most of the respondents were agreed to the point that the interdisciplinary approach is having a positive impact on the outcome of patients, improvement in health care services and other allied activities. Hence the null hypothesis 'The usage of Inter-disciplinary approach is having significant impact on the improvement of health care services and patient outcome' can be accepted and alternate hypothesis can be rejected.

5. Conclusion

As stated in the above given matter the main task of the healthcare workers is to bring about substantial changes in the health of patients, be ready with the latest information on chronic diseases, look of regular updates and development programs for their own good and benefit of the society; merging of inter disciplinary approaches in the health care system can benefit the stakeholders in various manners like the healthcare workers will get benefitted, patients will get better cure, goodwill of the hospital will improve and there are many other allied benefits. As a matter of fact, for the developed country like Saudi Arabia the development of healthcare services is one of the utmost needs and the healthcare professionals are going to play a vital role in the same. In many of the previous studies it has been stated that the process of interdisciplinary approach should be the part of medical education and should be added to the curriculum at an early stage so that the students should understand the importance of the same at an early stage; at the time of getting graduate they must be ready with the ability and understanding of knowledge exchange and expertise sharing.

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