

The Efficiency of Primary Health Care Centers in the Delivery of Health Care Services in Taif, Kingdom of Saudi Arabia

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ABSTRACT

This study assesses the efficiency of primary health care centers in delivering health care services in Taif, Kingdom of Saudi Arabia. It also aimed to raise awareness of basic health services offered by primary care centers. This research delves into the basic health services of the primary care center in the Taif Region, along with family health, non-communicable disease prevention and control, communicable disease prevention and control, and environmental health and sanitation. The findings revealed that family health services, maternal health, child health, and oral health programs were the most frequently offered. For non-communicable diseases, screening for diabetes, hypertension, and elevated cholesterol were prioritized. Regarding communicable diseases, influenza, measles, and tuberculosis were the most commonly addressed diseases. The primary focus areas were environmental health, food safety, water sanitation, and solid waste management. Both providers and clients are highly aware of these services, and centers are efficient in delivery. Awareness is significantly linked to efficiency. While agreement on awareness levels is high for family health and communicable diseases, it's lower for non-communicable diseases and environmental health. The proposed plan has the potential to enhance service efficiency. Implementing standardized efficiency measures is vital to enhancing primary healthcare in Taif. Healthcare providers should prioritize public awareness, ensure quality care, and participate in continuous professional development. Moreover, upgrading resources at primary healthcare centers, improving access to services, and adopting the proposed plan are crucial steps to enhance service delivery.

Keywords: Efficiency, Primary Health Care, Delivery of Health Services

INTRODUCTION

The roles and responsibilities of nurses' are varied. The nurse assumes the role of being the provider of care, advocate, educator, counselor, leader, change agent, and a researcher. But despite the many roles and responsibilities the nurse should assume, his main concern is the provision of effective, efficient and quality nursing care to clients.

The improvement in health quality of the population is a continuing challenge for societies and governments. In spite of the many advances in medical practice and health sciences in past years, the vast majority of the population still barely meets the minimum standards for health care and human development. Faced with the inadequacies in health services, the emergence of lifestyle diseases, new and uncontrolled communicable diseases, maldistribution of health resources, and the worsening social and economic status of the marginalized, some societies and governments are not able to cope adequately to meet the needs of the population (Famorca, et. al, 2013).

In 1978 in Alma Ata, Russia, a conference on Primary Health Care (PHC), jointly sponsored by the World Health Organization (WHO) and the United Nations Children's Emergency Fund (UNICEF), marked an international effort to correct serious gaps and deficiencies in the existing health services of many countries. Health became a social goal and a basic element in an improved quality of life. Since the conference, health

has become a political, community, and personal concern. Health for all has become a challenge of the times, and primary health care, the key to its attainment (UNICEF, 1978).

United Nations (1948) Universal Declaration of Human Rights, Article 25, Section 1 states that: “Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care necessary social services and the right to security in the event of unemployment, sickness, disability, old age, widowhood, or lack of livelihood in circumstances beyond his control”. In recognition of the Universal Declaration of Human Rights, a health care provider assures clients that these rights and privileges will be availed and enjoyed. It is also the responsibility of all health care providers to ensure directed toward the promotion and maintenance of health and well-being.

A Filipino nurse who works overseas remains aware and conscious of their nursing responsibilities as decreed by the Philippine Nursing Law. It guides them to correctly carry out their roles and functions as a nurse even when working in other countries.

A Filipino nurse is mandated by law (Article VI, Section 28, R.A. 9173 otherwise known as the Philippine Nursing Act of 2002) to provide nursing care through the utilization of the nursing process. Nursing care includes, but not limited to, traditional and innovative approaches, therapeutic use of self, executing health care techniques and procedures, essential primary health care, comfort measures, health teachings, and administration of written prescription for treatment, therapies, oral topical and parenteral medications, internal examination during labor in the absence of antenatal bleeding and delivery. (Official Gazette, 2002)

But working as a nurse in the Kingdom of Saudi Arabia would be a different story to tell. Although the essence of nursing, which is caring, is universal, the practice of nursing may be affected by cultural factors. The World Health Organization believes that “government have a responsibility for the health of their people which can be fulfilled only by the provision of adequate health and social measures”. Providing for the health care needs of the Saudi people has always been a priority of the Kingdom's leaders. Saudi Arabia has achieved astonishing success in health care services, such as free medical treatment for all citizens and the virtual eradication of epidemic diseases. The government has also made substantial progress in protecting the younger generations.

Primary health care activities in Taif Region began with the beginning of primary health care programs in the Kingdom of Saudi Arabia. Then, the services and activities provided by the primary health care centers have developed significantly. Health resources in Taif Region include 112 health centers aside from a medical point in Taif airport. These centers serve 99,476 households and about 750,177 clients were registered in these centers. On a day to day basis, the common cases handled by the Primary Health Care centers in Taif were rhinitis, 27.27 percent; upper respiratory tract infection (URTI), 15.38 percent; gastroenteritis, 9.09 percent; tonsillitis, 9.09 percent; otitis media, 9.09 percent; viral conjunctivitis, 9.09 percent; cutaneous leishmaniasis, 5.45 percent; diarrhea, 3.63; bilharzia, 3.63; brucellosis, 1.81 percent; food poisoning, 1.81 percent; and scorpion sting, 1.81 percent. Cases of pulmonary tuberculosis (PTB) are referred to chest hospital. The five catchment areas in Taif considered as the locale of the study serves about 180 to 260 clients every day. It provides vaccination, laboratory investigation, home visits, and medical consultation for general clients and those with chronic diseases. The four commonly managed clients are those with diabetes mellitus (Type 1 and 2), hypertension, heart diseases, and arthritis.

The International Council of Nurses (ICN) encouraged nurses and nursing organization in each country to make primary health care a reality. With this call, nurses responded by carrying out wide range of community health nursing activities. They also has undertaken program with a meaningful impact on people and community. Today, not only nurses are tasked to take on the challenges of primary health care and emerging trends in health care practice but all health care practitioners.

According to Al-Mazrou (2002), continuous revision and appraisal of all programs implemented in the Primary Health Care Centers is the key to the future of Primary Health Care (PHC). Sometimes, achievement of quality can be impeded by several factors according to AL-Ahmadi & Roland (2005). His study determined how the quality of Saudi primary care could be improved.

It is therefore in the light of this concern that the researcher felt the necessity to determine the efficiency of primary care centers in the delivery of health services to the community in order to discover what needs to be improved, changed or modified to ensure that quality, effective, efficient, and accessible health care services will be provided to the community.

This study attempted to determine and evaluate the efficiency of primary care centers in the delivery of basic health services in five catchment areas in Taif Region, KSA. Specifically, this study sought answers to the following questions: (1) What basic health services are offered by the primary care centers in Taif Region along: Family health, Non-communicable Disease Prevention and Control, Communicable Disease Prevention and Control and Environmental Health and Sanitation; (2) What is the respondents' level of awareness on the aforementioned health services provided by the primary care centers? (3) To what extent is the level of efficiency of the primary care center in delivering the health care services to the community? (4) How does the level of awareness significantly relate to the efficiency of primary care centers in delivering health services? (5) How significant do the rank orders of the perceptions of the level of awareness and the efficiency in delivering quality health services to the community agrees among the different groups of respondents? (6) What plan can be proposed to increase the level of awareness of the basic health services offered by the primary care centers among the members of the family and the community?

This study was premised on the following assumptions: (1) There are several health services offered by the primary care centers in Taif Region, Kingdom of Saudi Arabia; (2) The respondents' are the best source of information about their level of awareness on the basic health services provided by primary care centers; (3) The respondent's assessment could be the basis of the level of efficiency in the delivery of quality services of the health care centers; (4) Based from the findings of the study, a plan will be proposed to improve the level of awareness on the basic health services provided by primary care centers.

This study was anchored on the following hypotheses: (1) There is no significant relationship between the level of awareness and the efficiency in delivering health care services; (2) There is no significant difference on the perceptions of the respondents as to the level of efficiency of primary care centers in delivering quality health services to the community.

The primary concern of this study was to determine the efficiency of primary care centers in the delivery of basic health services in five catchment areas in Taif Region. The evaluation of the respondents' level of awareness and the level of efficiency was delimited to Calendar Year 2014 – 2015. The responses of the research subjects were based on the perception of their awareness and the efficiency of the basic health services offered by the Primary Health Care Centers along family health, non-communicable disease (NCD), communicable disease (CD), and environmental health.

METHODOLOGY

In this study, the descriptive-evaluative-inferential-correlational method was utilized. Descriptive method is designed to gain more information about characteristics within a field of study. Its purpose is to provide a picture of a situation as it normally happens (Burns & Grove, 2007). Descriptive method in forms of survey is primarily concerned with describing the nature or condition and degree of a situation to gain respondent's evaluation of the efficiency of primary care centers in the delivery of basic health services to the community. It is inferential since the study tested the significant difference on the perception of the respondents on the level of awareness and the efficiency in delivering quality health services to the community. This study is also a correlational study since it aimed to establish relationship between variables through statistical analysis using an accepted statistical tool at a certain level of significance. This study will determine how the respondents level of awareness significantly relate to the efficiency of primary care centers in delivering health care services.

Respondents

The research subjects of the study were the five administrators, five medical directors, 20 doctors, 29 nurses and 154 clients of the selected primary health care centers in Taif, Saudi Arabia. These respondents are the

provider and recipients of care who can accurately and reliably evaluate the efficiency in delivering basic health services.

Research Instruments

Data collection was conducted with the use of questionnaire administered to the respondents. A questionnaire was utilized in gathering data to determine and evaluate the efficiency of primary care centers in the delivery of basic health services in five catchment areas in Taif, Saudi Arabia. Likert-type scale was used in quantifying and interpreting the weighted mean for each indicator included in the study, which consists of the following interpretations:

Table 1: On the level of awareness on the basic health services offered by Primary Health Care Centers in Taif

Scale	Interval	Verbal Interpretation
5	4.50 – 5.00	Very Much Aware
4	3.50 – 4.49	Much Aware
3	2.50 – 3.49	Aware
2	1.50 – 2.49	Moderately Aware
1	1.00 – 1.49	Not-At-All

Table 2: On the level of efficiency

Scale	Interval	Verbal Interpretation
5	4.50 – 5.00	Very Much Efficient
4	3.50 – 4.49	Much Efficient
3	2.50 – 3.49	Efficient
2	1.50 – 2.49	Moderately Efficient
1	1.00 – 1.49	Not-At-All

Statistical Treatment of Data

Several statistical tools were utilized by the researcher to treat the data gathered. The statistical tools used were frequency count, percentage technique, weighted mean, Spearman Rank Order Coefficient Correlation and Cramer Coefficient C. To determine the profile of the respondents, the frequency count, rank and percentage were used. Frequency count was utilized to tally the number of responses of respondents and ranking will be employed to show which among the responses or indicators have greater value. Percentage technique was used to determine basic health care services offered by primary care centers in Taif, Saudi Arabia.

The weighted mean was used to determine the level of awareness and the perceptions of the respondents in terms of the level of efficiency of primary care centers in delivering health care services to the community. The Spearman rank-order correlation coefficient is a nonparametric measure of the strength and direction of association that exists between two variables measured on at least an ordinal scale to determine the significant relationship between level of awareness and the efficiency of primary health care centers in delivering health services. To determine significance of agreement on the rank orders on the perceptions of level awareness and efficiency in the delivery of health care services, the Kendall's Coefficient of Concordance W was employed.

RESULTS AND DISCUSSIONS

The Basic Health Services Offered by the Primary Care Centers in Taif Region

Family Health Services

The statistical figures shown in Table 3 are the family health services provided by the PHC centers in the five catchment areas in Taif, Saudi Arabia. Nine family health services are offered by the PHC centers in Taif Region, distributed as follows: maternal health program with a frequency of 205 or 96.24%, child health

program, 203 or 95.30%; oral health program, 169 or 79.34%; expanded program on immunization with 164 or 76.99%; management of childhood illnesses (MCI) with 151 or 70.89%; family planning program, 140 or 65.72%; nutrition program, 137 or 64.31%; reproductive health, 126 or 59.15%; and adolescent health program with 121 or 56.80%. To further enhance family health, PHC centers also provides the following services namely; family planning program, nutrition program, reproductive health, and adolescent health program.

Table 3: Family Health Care Services Offered by the Primary Health Care Centers in Taif Region as Perceived by the Respondents

Health Services	Administrators		Directors		Doctors		Nurses		Clients		Total	%
	fc	%	fc	%	fc	%	fc	%	fc	%		
1. Maternal Health Program	5	100	5	100	20	100	27	93.10	148	96.10	205	96.24
2. Family Planning Program	4	80	2	40	13	65	19	65.51	102	66.23	140	65.72
3. Child Health Program	5	100	5	100	20	100	23	79.31	150	97.40	203	95.30
4. Expanded Program on Immunization	5	100	5	100	17	85	25	86.20	112	72.72	164	76.99
5. Management of Childhood Illnesses	4	80	3	60	18	90	16	55.17	110	71.42	151	70.89
6. Nutrition Program	5	100	1	20	13	65	24	82.76	94	62.03	137	64.31
7. Oral Health Program	5	100	4	40	16	80	20	68.97	124	80.51	169	79.34
8. Adolescent Health Program	4	40	1	20	13	65	21	72.41	82	53.24	121	56.80
9. Reproductive Health	4	40	1	20	16	80	24	82.76	82	53.24	126	59.15

Legend:

fc – Frequency count

%- Percentage count

Non-communicable Disease Prevention and Control Services

The World Health Organization reports non-communicable diseases to be leading cause of mortality. It was noted in statistical reports that almost 63 percent of the total deaths worldwide are due to NCDs and the remaining 37 percent were due to communicable diseases (Famorca, et. al, 2013). Table 4 shows the non-communicable disease prevention and control services provided by the PHCs in Taif Region, Saudi Arabia.

Table 4: Non-communicable Disease Prevention and Control Services Offered by the Primary Health Care Centers in Taif Region as Perceived by the Respondents

Health Services	Administrators		Directors		Doctors		Nurses		Clients		Total	%
	fc	%	fc	%	fc	%	fc	%	fc	%		
1. Risk Assessment												
1.1 Cigarette smoking	5	100	3	60	16	80	17	58.62	92	59.74	131	61.50
1.2 Nutrition and diet	5	100	3	60	16	80	18	62.07	68	44.16	110	51.64
1.3 Overweight/Obesity	4	80	2	40	16	80	17	58.62	72	46.75	111	52.11
1.4 Sedentary lifestyle/physical inactivity	0	0	0	0	13	65	8	27.59	46	29.87	67	31.46
2. Screening Procedures												
2.1. Hypertension	5	100	4	80	20	100	25	86.20	94	61.03	148	69.48
2.2. Elevated cholesterol	5	100	5	100	20	100	22	75.86	90	58.44	142	66.67
2.3. Diabetes mellitus	5	100	5	100	20	100	22	75.86	112	72.72	164	76.99
2.4. Cancer	3	60	0	0	9	45	13	44.82	58	37.66	83	38.97
2.5. COPD	2	40	1	20	11	55	12	41.38	64	41.56	90	42.25
2.6. Asthma	2	40	2	40	14	70	23	79.31	70	45.45	111	52.11
3. Promoting Physical Activity and Exercise	4	80	3	60	14	70	18	62.07	76	49.35	115	53.99
4. Promoting Proper Nutrition	4	80	3	60	14	70	21	72.41	66	42.86	108	50.70
5. Promoting Smoke-Free Environment	4	80	1	20	15	75	15	51.72	72	46.75	107	50.23
6. Promoting Stress Management	4	80	1	20	10	50	20	68.97	66	42.86	101	47.41

Legend:

fc – Frequency count

%- Percentage count

On non-communicable disease prevention and control, the top three services provided include: screening procedures for diabetes mellitus with a frequency of 164 or 76.99%; hypertension with 148 or 69.48%; and elevated cholesterol with a frequency count of 142 or 66.67%. The PHC centers also offers risk assessment for cigarette smoking, 131 or 61.50%; promoting physical activity and exercise, 115 or 53.99%; screening procedure for asthma and risk assessment for overweight/obesity and nutrition, with 111 or 52.11% respectively; promoting proper nutrition, 108 or 50.70%; and promoting smoke-free environment, 107 or 50.23%.

Communicable Disease Prevention and Control Services

Communicable diseases are most often one of the leading causes of morbidity. In terms of communicable disease prevention and control services, the responses of health care practitioners and clients of the PHC centers in Taif revealed that the top ten leading communicable diseases prevented and controlled are influenza with a frequency of 166 or 77.93 percent, measles with 147 or 69.01 percent, tuberculosis (TB) with 134 or 62.91 percent, chickenpox, diphtheria, pertussis and tetanus with 128 or 60.09 percent, mumps with a frequency of 126 or 59.15 percent, bacillary dysentery with 105 or 49.29 percent, pneumonia with 103 or 48.36%, typhoid fever with 96 or 45.07 percent, and malaria with 95 or 44.60 percent. Occupying the 11th to 15th spot are cholera and dengue fever with a frequency count of 93 or 43.66 percent, schistosomiasis with 88 or 41.31 percent, leprosy with 78 or 36.61 percent and filariasis with a frequency of 72 or 33.80 percent.

Table 5: Communicable Disease Prevention and Control Services Offered by the Primary Health Care Centers in Taif Region as Perceived by the Respondents

Health Services	Administrators		Directors		Doctors		Nurses		Clients		Total	%
	fc	%	fc	%	fc	%	fc	%	fc	%		
1. TB Control Program	3	60	4	80	20	100	21	72.41	86	55.84	134	62.91
2. Leprosy	3	60	1	20	5	25	17	58.62	52	33.77	78	36.61
3. Schistosomiasis	5	100	2	40	8	40	19	65.51	54	35.06	88	41.31
4. Filariasis	1	20	1	20	10	50	14	48.28	46	29.87	72	33.80
5. Malaria	5	100	3	60	11	55	22	75.86	54	35.06	95	44.60
6. Dengue Fever	4	80	4	80	12	60	15	51.72	58	37.66	93	43.66
7. Measles	5	100	3	60	20	100	23	79.31	96	62.33	147	69.01
8. Chickenpox	5	100	4	80	20	100	19	48.28	80	51.95	128	60.09
9. Mumps	3	60	3	60	20	100	20	68.97	80	51.95	126	59.15
10. Diphtheria, Pertussis, Tetanus (DPT)	4	80	3	60	20	100	23	79.31	78	50.64	128	60.09
11. Pneumonia	4	80	3	60	18	90	14	48.28	64	41.56	103	48.36
12. Influenza	5	100	3	60	20	100	20	68.97	118	76.62	166	77.93
13. Typhoid fever	3	60	4	80	17	85	20	68.97	52	33.77	96	45.07
14. Bacillary dysentery	3	60	3	60	15	75	16	55.17	68	44.16	105	49.29
15. Cholera	3	60	3	60	12	60	7	24.13	68	44.16	93	43.66

Legend:

fc – Frequency count

%- Percentage count

Environmental Health Services

Protection of the environment and upgrading of relevant regulations is one of the main objectives of the successive economic and social development plans in the Kingdom of Saudi Arabia. The UNDP in Saudi Arabia further stated that drive for environmental protection and conservation in the Kingdom reflects a

commitment to implement Article 32 of the Basic Law of Governance, which states that “the state shall endeavor to conserve, protect, develop and prevent pollution of the environment”.

Table 6: Environmental Health Services Offered by the Primary Health Care Centers in Taif Region as Perceived by the Respondents

Health Services	Administrators		Directors		Doctors		Nurses		Clients		Total	%
	fc	%	fc	%	fc	%	fc	%	Fc	%		
1. Solid Waste Management	3	60	5	100	13	65	21	72.41	80	51.95	122	57.28
2. Water sanitation	4	80	5	100	16	80	24	82.76	74	48.05	123	57.74
3. Toxic and hazardous waste control	5	100	4	80	16	80	13	44.82	78	50.64	116	54.56
4. Food safety	5	100	5	100	16	80	15	51.72	96	62.33	137	64.31
5. Vermin and vector control	5	100	5	100	11	55	12	41.38	50	32.47	83	38.97
6. Institutional sanitation	3	60	4	80	10	50	16	55.17	76	49.35	109	51.17
7. Proper excreta and sewage disposal program	4	80	3	60	12	60	15	51.72	54	35.06	88	41.31
8. Noise and air pollution control	3	60	2	40	6	30	16	55.17	66	42.86	93	43.66
9. Radiological protection	4	80	1	20	8	40	22	75.86	76	49.35	111	52.11

Legend:

fc – Frequency count

% - Percentage count

On environmental health services, top of the list is food safety with a frequency count of 137 or 64.31%. It is followed by water sanitation with 123 or 57.74%, solid waste management with 122 or 57.28%, toxic and hazardous waste control with 116 or 54.56%, radiological protection with 111 or 52.11%, institutional sanitation with 109 or 51.17%, noise and air pollution control with a frequency count of 93 or 43.66%, proper excreta and sewage disposal system with 88 or 41.31%, and vermin and vector control with 83 or 38.97%.

Against this backdrop, several decisions, strategies and measures were issued in the last years with an aim to integrate environment-related sustainable development principles into the government’s development policies and programs, in such a way that conserves natural resources and ensures their rational utilization. In addition, several programs and projects were implemented leading to tangible progress in all aspects of environmental protection and conservation.

The Level of Awareness of the Health Care Practitioners and their Clients on Basic Health Services in Taif Region

Family Health

Family health, rated as “Much Aware” by health care providers was on the programs offered to ensure healthy pregnancy and birth of full term baby with a general average weighted mean of 4.36; infant and child feeding, newborn screening, immunizations, and dental obtaining an average weighted mean of 4.34; providing immunization to reduce morbidity and mortality among infants and children, 4.27; micronutrient supplementation, food fortification, and essential maternal and child health service package, 4.16; implementing programs on oral/dental health to control oral health risks and improve oral health conditions, 4.09; integration of reproductive health services to basic health services to reduce maternal and child mortality, 3.93; and universal access to family planning information and services, 3.69.

Table 7: Level of Awareness on Family Health Awareness for both Health Care Providers and Clients

Indicator	Average Weighted Mean (HCPs)	Verbal Interpretation (HCPs)	Average Weighted Mean (Clients)	Verbal Interpretation (Clients)
Providing immunization to reduce morbidity and mortality among infants and children	4.27	Much Aware	4.46	Much Aware
Offering programs to ensure healthy pregnancy and birth of a full-term baby	4.36	Much Aware	3.56	Much Aware
Infant and young child feeding, newborn screening, immunizations, and dental health	4.34	Much Aware	3.5	Much Aware
Micronutrient supplementation, food fortification, and essential maternal and child health service package	4.16	Much Aware	3.29	Aware
Implementing programs on oral/dental health to control oral health risks	4.09	Much Aware	3.77	Much Aware
Integration of reproductive health services to basic health services	3.93	Much Aware	3.39	Aware
Universal access to family planning information and services	3.69	Much Aware	3.43	Aware

The clients rating of “Much Aware” was on providing immunization to reduce morbidity and mortality among infants and children first with weighted mean of 4.46; implementing programs on oral/dental health to control oral health risks and improve oral health conditions, 3.77; offering programs to ensure health pregnancy and birth of full term baby, 3.56; and offering infant and young child feeding, newborn screening, immunizations and dental health, 3.50; while rated as “Aware”, was on providing universal access to family planning information and services, 3.43; integrating reproductive health services as part of basic health services to reduce maternal and child mortality, 3.39; and carrying out micronutrient supplementation, food fortification, and essential maternal and child health service package, 3.29.

These results could mean that the primary health care centers should strengthen their campaign and information dissemination on the basic family health services offered by the PHC centers. As provider of care, health care practitioners have significant roles in ensuring the health of the family. According to the National League of Philippine Government Nurses (2007), every effort has to be made to provide packages of health services to the family for a better and quality life.

Non-communicable Disease

Non-communicable Disease Prevention and Control, rated as “Much Aware” by health care practitioners on identifying causes and risk factors of major NCDs, cardiovascular disease, cancer, COPD, and diabetes mellitus, 4.29; offering programs for prevention and control of blindness, mental disorders, renal diseases and programs for disabled persons, 4.23; offering strategies to promote healthy nutrition-related practices, nutrition assessment, nutrition education and counseling, 4.06; providing risk assessment and screening procedures, 3.97; implementing smoking cessation program, 3.96; promoting stress management, 3.90; and promoting physical activity and exercise, 3.60.

Table 8: Level of Awareness on Non-communicable Disease for both Health Care Providers and Clients

Indicator	Average Weighted Mean (HCPs)	Verbal Interpretation (HCPs)	Average Weighted Mean (Clients)	Verbal Interpretation (Clients)
Identifying causes and risk factors of major NCDs (CVD, cancer, COPD, diabetes)	4.29	Much Aware	3.32	Aware
Offering programs for prevention and control of blindness, mental disorders, renal diseases, and programs for disabled persons	4.23	Much Aware	2.7	Aware
Offering strategies to promote healthy nutrition-related practices, nutrition assessment, education, and counseling	4.06	Much Aware	3.16	Aware
Providing risk assessment and screening procedures	3.97	Much Aware	3.23	Aware
Implementing smoking cessation program	3.96	Much Aware	2.79	Aware
Promoting stress management	3.9	Much Aware	3	Aware
Promoting physical activity and exercise	3.6	Much Aware	3.11	Aware

The “Aware” rating was given by clients on identifying causes and risk factors of major NCDs, cardiovascular disease, cancer, COPD, and diabetes mellitus, 3.32; providing risk assessment and screening procedures, 3.23; offering strategies to promote healthy nutrition-related practices, nutrition assessment, nutrition education and counseling, 3.16; promoting physical activity and exercise, 3.11; promoting stress management, 3.0; implementing smoking cessation program, 2.79; and offering programs for prevention and control of blindness, mental disorders, renal diseases and programs for disabled persons, 2.70.

Communicable Disease

On communicable disease prevention and control, rated as “Very Much Aware” by health care practitioners was on implementing active immunization with DPT with an average weighted mean of 4.56; and prevention and control of influenza, pneumonia, cholera, typhoid fever and bacillary dysentery, 4.5; while rates as “Much Aware” were on implementing programs for the control and prevention of measles, mumps and chickenpox, 4.30; implementing TB control program, 4.13; conducting case finding to recognize early signs and symptoms, 4.10; instituting sustainable preventive and vector control measures like house spraying, stream seeding and clearing, insecticide treatment of mosquito nets, 4.07; and offering program for the control and prevention of filariasis and schistosomiasis, 3.88.

Table 9: Level of Awareness on Communicable Disease for both Health Care Providers and Clients

Indicator	Average Weighted Mean (HCPs)	Verbal Interpretation (HCPs)	Average Weighted Mean (Clients)	Verbal Interpretation (Clients)
Implementing active immunization with DPT	4.56	Very Much Aware	3.9	Much Aware
Prevention and control of influenza, pneumonia, cholera, typhoid fever, and bacillary dysentery	4.5	Very Much Aware	3.28	Aware
Implementing programs for the control and prevention of measles, mumps, and chickenpox	4.3	Much Aware	3.68	Much Aware
Implementing TB control program	4.13	Much Aware	3.35	Aware
Conducting case finding to recognize early signs and symptoms	4.1	Much Aware	3.27	Aware
Instituting sustainable preventive and vector control measures (house spraying, stream seeding, insecticide-treated mosquito nets)	4.07	Much Aware	2.86	Aware
Offering programs for the control and prevention of filariasis and schistosomiasis	3.88	Much Aware	3	Aware

The client’s rating of “Much Aware” was observed on implementing active immunization with DPT, 3.90; and implementing programs for control and prevention of measles, mumps, and chickenpox, 3.68, while treated as “Aware” were on implementing TB control program, 3.35; prevention and control of influenza, pneumonia, cholera, typhoid fever and bacillary dysentery, 3.28; conducting case finding to recognize early signs and symptoms, 3.27; offering control program for the control and prevention of filariasis and schistosomiasis, 3.00; and instituting sustainable preventive and vector control measures like house spraying, stream seeding and clearing, insecticide treatment of mosquito nets, 2.86.

Environmental Health

On environmental health, rated as “Much Aware” by the health care practitioners were on strictly implements solid waste management, 4.37; implements strategies for vermin and vector control, 4.05; provides program for water and food sanitation, 3.98; implements rules and regulations for food safety and sanitation especially

food establishment, 3.97; monitor and survey utilization of sanitary toilet facilities, 3.83; offers program for the prevention and control of noise and air pollution, 3.77; and conducts environmental sanitation campaigns and projects, 3.71.

Table 10: Level of Awareness on Environmental Health for both Health Care Providers and Clients

Indicator	Average Weighted Mean (HCPs)	Verbal Interpretation (HCPs)	Average Weighted Mean (Clients)	Verbal Interpretation (Clients)
Strictly implements solid waste management	4.37	Much Aware	3.46	Aware
Implements strategies for vermin and vector control	4.05	Much Aware	2.36	Moderately Aware
Provides program for water and food sanitation	3.98	Much Aware	3.09	Aware
Implements rules and regulations for food safety and sanitation (food establishments)	3.97	Much Aware	2.92	Aware
Monitor and survey utilization of sanitary toilet facilities	3.83	Much Aware	3.06	Aware
Offers program for the prevention and control of noise and air pollution	3.77	Much Aware	3.01	Aware
Conducts environmental sanitation campaigns and projects	3.71	Much Aware	3.04	Aware

The clients rating “Aware” were on strictly implements solid waste management, 3.46; provides program for water and food sanitation, 3.09; monitor and survey utilization of sanitary toilet facilities, 3.06; conducts environmental sanitation campaigns and projects, 3.04; offers program for the prevention and control of noise and air pollution, 3.01; and implements rules and regulations for food safety and sanitation especially food establishment, 2.92. Rated as “Moderately Aware” was implements strategies for vermin and vector control, 2.36.

Level of Efficiency of Primary Health Care Centers in the Delivery of Health Care Services to the Community

On the level of efficiency, the rating “Very Much Efficient” was given by health care practitioners on taking history through interview to determine client’s condition with a weighted mean of 4.51, while described as “Much Efficient” ratings were on managing and treating childhood illnesses and carrying out active immunizations for preventable diseases both obtained a weighted mean of 4.29; encouraging active participation in environmental sanitation campaigns and projects in the community and identifying cases of target diseases (NCDs and CDs), 4.27; inspecting food establishment to ensure food safety and sanitation, and providing health education to promote health and reduce risks of NCDs and CDs, 4.26; counseling on healthy lifestyle with focus on smoking cessation, nutrition and diet, regular exercise and oral health, 4.22; coordinating programs, projects, activities with other government and non-government agencies, 4.2; conducting case finding to identify early signs and symptoms of communicable disease, 4.19; monitoring and evaluating the effectiveness of health programs in promoting health and wellness, 4.13; promoting breastfeeding, 4.10; implementing environmental health programs, 4.09; developing good communications strategy between clients and health providers, 4.03; conducting stress management seminar/training, 3.97; preventing and managing hypertension, diabetes, TB, malaria, dengue, schistosomiasis, HIV/AIDS, 3.96; delivery of quality family health services to clients, 3.95; providing micronutrient supplementation, food fortification, deworming, and essential maternal and child health service, 3.79; recognizing population at risk for NCD and CD, 3.78; and promoting birth planning and facility-based delivery, 3.72.

Table 11: Level of Efficiency on Primary Health Care Centers for both Health Care Providers and Clients

Indicator	Average Weighted Mean (HCPs)	Verbal Interpretation (HCPs)	Average Weighted Mean (Clients)	Verbal Interpretation (Clients)
Taking history through interview to determine client's condition	4.51	Very Much Efficient	3.79	Much Efficient
Managing and treating childhood illnesses	4.29	Much Efficient	3.92	Much Efficient
Carrying out active immunizations for preventable diseases	4.29	Much Efficient	3.58	Much Efficient
Encouraging active participation in environmental sanitation campaigns	4.27	Much Efficient	3.42	Efficient
Identifying cases of target diseases (NCDs and CDs)	4.27	Much Efficient	3.53	Much Efficient
Inspecting food establishments to ensure food safety and sanitation	4.26	Much Efficient	3.41	Efficient
Providing health education to promote health and reduce risks of NCDs and CDs	4.26	Much Efficient	3.64	Much Efficient
Counseling on healthy lifestyle with focus on smoking cessation, nutrition, and exercise	4.22	Much Efficient	3.39	Efficient
Coordinating programs, projects, activities with other government and non-government agencies	4.2	Much Efficient	3.12	Efficient
Conducting case finding to identify early signs and symptoms of communicable disease	4.19	Much Efficient	3.41	Efficient
Monitoring and evaluating the effectiveness of health programs in promoting health	4.13	Much Efficient	3.29	Efficient
Promoting breastfeeding	4.1	Much Efficient	3.49	Much Efficient
Implementing environmental health programs	4.09	Much Efficient	3.28	Efficient
Developing good communication strategy between client and health providers	4.03	Much Efficient	3.32	Efficient
Conducting stress management seminars/training	3.97	Much Efficient	3.48	Efficient
Preventing and managing hypertension, diabetes, TB, malaria, dengue, schistosomiasis, HIV/AIDS	3.96	Much Efficient	3.51	Much Efficient
Delivery of quality family health services to clients	3.95	Much Efficient	3.6	Much Efficient
Providing micronutrient supplementation, food fortification, deworming, and essential maternal and child health services	3.79	Much Efficient	3.4	Efficient
Recognizing population at risk for NCDs and CDs	3.78	Much Efficient	3.35	Efficient
Promoting birth planning and facility-based delivery	3.72	Much Efficient	3.25	Efficient

Clients rated “Much Efficient” on managing and treating childhood illnesses, 3.92; taking history through interview to determine client's condition, 3.79; providing health education to promote health and reduce risks of NCDs and CDs, 3.64; delivery of quality family health services to clients, 3.6; carrying out active immunizations for preventable diseases, 3.58; identifying cases of target diseases (NCDs and CDs), 3.53; and preventing and managing hypertension, diabetes, TB, malaria, dengue, schistosomiasis, HIV/AIDS, 3.51, while rated as “Efficient” were on promoting breastfeeding, 3.49; conducting stress management seminar/training, 3.48; encouraging active participation in environmental sanitation campaigns and projects in the community, 3.42; inspecting food establishment to ensure food safety and sanitation, and conducting case finding to identify early signs and symptoms of communicable diseases, 3.41; providing micronutrient supplementation, food fortification, 3.40; counseling on healthy lifestyle with focus on smoking cessation, nutrition and diet, regular exercise and oral health, 3.39; recognizing population at risk for NCD and CD, 3.35; developing good communications strategy between client and health care providers, 3.32; monitoring and evaluating the effectiveness of health programs in promoting health and wellness, 3.29; implementing

environmental health programs, 3.28; promoting birth planning and facility-based delivery, 3.25; and coordinating programs, projects, activities with other government and non-government agencies, 3.12.

Test of Significant Relationship between the Health Care Practitioners Awareness and Efficiency of Primary Health Care Centers of the Five Catchment Areas in Taif, Saudi Arabia

On the test of significant relationship between the health care practitioners awareness and efficiency of primary health care centers, the coefficient of correlation was 0.625 for family health, non-communicable disease 0.24, communicable disease 0.56, and 0.49 for environmental health. The computed t value of family health was 7.56 ($p < 0.001$), for non-communicable disease 2.78 ($p < 0.005$), for communicable disease was 5.08 ($p < 0.001$) and for environmental health, 4.24 ($p < 0.001$), were all greater than the tabular value of 3.291 (.001) for family health, 2.576 (.005) for non-communicable disease, 3.291 (.001) for communicable disease, and 3.291(.001) for environmental health, implying that significant relationship exist. It is therefore evident, that significant relationship exists between the HCPs awareness and level of efficiency. It implies that the knowledge of health care practitioners is essential in the delivery of efficient and effective health care services to the community. It further implies that the diverse appraisal of the respondents indicates the independent perspective on the level of awareness and efficiency of health care practitioners.

On the test of significant relationship between the client's awareness and efficiency of primary health care centers, the coefficient of correlation was 0.71 for family health, 0.66 for non-communicable disease, 0.65 communicable disease, and 0.645 for environmental health. The computed t value of 12.42 on family health was found to be greater than the tabular value of 3.291 at 0.001 level of significance. Along non-communicable disease, communicable disease and environmental, the null hypothesis was likewise rejected since the computed t value of 22.56, 10.53, and 10.40 was greater than the tabular value of 3.291 at 0.001 significance level, hence, significant relationship between awareness and efficiency exist. Therefore, there was significant relationship between awareness and efficiency implying that the degree of client's awareness on the basic health care services offered by the PHC centers in Taif Region is highly significant in the client's perception on the level of efficiency of PHC centers in the delivery of health services to the people.

Test of Significance of Agreement on the Rank Orders of the Perceptions on the Level of Awareness of the Basic Health Services of Taif Region among the Different Groups of Respondents

On the test of significance of agreement on rank orders of the perceptions on the level of awareness of the basic health services, the coefficient of concordance for family health was 0.519, non-communicable disease 0.37, communicable disease 0.51, and 0.29 for environmental health. The computed chi-square value of 11.1 and 8.7 along non-communicable disease and environmental health are less than the tabular chi-square of 12.92 at 0.05 level of significance with 6 degrees of freedom, implying not significant agreement exist; the computed chi-square for family health was 15.57 ($p < 0.025$) and 15.3 ($p < 0.025$) for communicable disease were all greater than the critical values, thus, implying the existence of significant agreement.

On test of significance of agreement on the rank orders of the efficiency, the coefficient of concordance and computed chi-square yielded 0.032 and 3.04 and with a tabular chi-square of 30.144 at 0.05 level of significance with 19 degree of freedom, denoting that agreement on the rank orders of the efficiency was not significant.

Proposed Plan to Increase Level of Awareness of the Basic Health Services Offered by the Primary Health Care Centers in Taif, Saudi Arabia

The delivery of health care services is influenced by several factors. Issues of cost, access and quality affects the delivery of health services needed by the community. To meet the challenges of the Saudi health care system and to improve the quality of health care services, the MOH has set a national strategy for health services. This strategy focuses on diversifying funding sources; developing information system; developing human workforce; activating the supervision and monitoring role of the MOH over health services; encouraging private sector to take its position in providing health services; improving the quality of preventive, curative, and rehabilitative care; and distributing health care services equally to all regions (Almaki, et al, 2011).

Table 12: Proposed Plan to Increase Efficiency in the Delivery of Health Services in the Five Catchment Areas in Taif, Saudi Arabia

Areas of Concern	Objectives	Strategies/Activities	Persons Involved	Logistics/Resources	Success Indicator
1. Capacity building	To improve the quality and safety of primary care services.	Conduct regular monitoring and assessment of practice performance on quality and safety measures. Periodically evaluate performance of staff or personnel involved in the delivery of health services. Determine need for additional infrastructure, equipments, supplies, and health personnels. Determine client's urgent needs and preferences.	Administrators Directors Doctors Nurse Supervisor Staff Nurses	Institution Fund Performance Evaluation Checklist	The PHC centers will demonstrate implementation of measures to ensure provision of quality and safe primary care services.
2. Care Coordination	To organize client care activities and sharing information among health care practitioners to achieve quality, safer, and more efficient health care services.	Maintain an open line of communication to ensure safe, appropriate and effective care. Strictly implement approaches commonly used to improve health care delivery like care management, and health information technology Regularly monitor and follow-up client thru home visits, and address client's needs and problems.	Administrators Directors Doctors Nurse Supervisor Staff Nurses	Institution Fund	The HCPs will determine the urgent needs and problems of the community and will find ways to address them.
3. Community Linkages	To establish connections between HCPs, community organizations, and public health agencies.	Develop partnership between organizations that promote health of people and the community. Conduct community level activities to improve client's access to health care. Promote active participation and involvement activities.	Administrators Directors Doctors Nurse Supervisor Staff Nurses	Institution Fund	The HCPs will establish a strong linkage with family, community and organizations concerned with the promotion and maintenance of health. The community will have increase access to different health care services.
4. Information Dissemination	To spread awareness in the community regarding the basic health care services that can be availed in the PHC centers.	Strengthen public awareness on the services offered by PHC centers thru extensive mass media campaign. Securely share health information over the internet. Distribute pamphlets, brochures, leaflets or flyers about the different services or programs offered by the PHC centers.	Administrators Directors Doctors Nurse Supervisor Staff Nurses	Institution Fund	The community will become more informed/aware of the different health services offered by the PHC centers.

The study disclosed that awareness is one of the measures that determines efficiency. It is then important for health care practitioners to recognize their critical role in increasing public awareness on the different health programs and services offered by the PHC centers. This study presents a proposed plan to increase the level of awareness of health care practitioners and their clients on the basic health services offered by the PHC centers in Taif, Saudi Arabia. This plan can help in strengthening information dissemination.

CONCLUSION AND RECOMMENDATIONS

Based from the findings, the following conclusions were made: (1) The Primary Health Care Centers in Taif, Saudi Arabia offers varied services to promote and maintain health; prevent illness and complications; and alleviate sufferings; (2) Taken as a whole, the level of awareness of the Health Care Practitioners and their Clients on the basic health services offered by the PHC Centers in Taif Region along Family Health, Non-communicable Disease, Communicable Disease and Environmental Health were rated as "Much Aware"; (3)

The level of efficiency of Primary Health Care Centers in the delivery of health services was generally treated as “Much Efficient”; (4) There is a significant relationship between awareness and efficiency of Primary Health Care Centers in terms of Family Health, Non-communicable Disease, Communicable Disease and Environmental Health; (5) There exists a significant agreement on the rank orders of the respondents’ perceptions on the level of awareness of the basic health services in Taif Region along Family Health and Communicable Disease. There is no significant agreement on the rank orders of the perceptions on the level of awareness in terms of Non-communicable Disease and Environmental Health; (6) The plan proposed in the study can be used to increase the level of efficiency of the basic health services offered by the primary care centers among the members of the family and the community.

Based from the findings and conclusions, the following recommendations were formulated: (1) A standard measure of efficiency must be used to accurately evaluate the level of efficiency of Primary Health Care Centers in Taif Region in the delivery of health services; (2) The Health Care Practitioners (HCPs) has to pay more attention in improving public awareness, efficiency and quality care in providing basic health services; (3) The Primary Health Care (PHC) Centers has to conduct training/seminar to enhance the skills, knowledge and attitudes of HCPs in order to help them become more efficient and competent providers of care; (4) The resources of the PHC centers should be continuously upgraded to ensure much improved quality of primary care services; (5) Improve access to care by implementing established protocols like appointment systems, registers, and follow-up system; (6) The proposed plan be adopted for a more improved efficiency in the delivery of primary care services.

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