



THE AGA KHAN UNIVERSITY

eCommons@AKU

School of Nursing & Midwifery

Faculty of Health Sciences

January 2016

Integration of health promotion into nursing practice: a case study in Pakistan.

Muneerah Vastani

Aga Khan University, muneerah.vastani@aku.edu

Rozina Karmaliani Professor

Aga Khan University, rozina.karmaliani@aku.edu

Pammla M. Petrucka

University of Saskatchewan, Saskatoon, Canada and Academics without Borders Volunteer—Aga Khan University, Karachi, Pakistan

Follow this and additional works at: http://ecommons.aku.edu/pakistan_fhs_son



Part of the [Nursing Midwifery Commons](#)

Recommended Citation

Vastani, M., Karmaliani, R., Petrucka, P. M. (2016). Integration of health promotion into nursing practice: a case study in Pakistan.. *Open Journal of Nursing*, 6(1), 37-45.

Available at: http://ecommons.aku.edu/pakistan_fhs_son/157

Integration of Health Promotion into Nursing Practice: A Case Study in Pakistan

M. A. Vastani¹, R. Karmalani², P. M. Petrucka³

¹Aga Khan University, Dar es Salaam, Tanzania

²Aga Khan University, Karachi, Pakistan

³University of Saskatchewan, Saskatoon, Canada and Academics without Borders Volunteer—Aga Khan University, Karachi, Pakistan

Email: muneerah.vastani@aku.edu, rozina.karmalani@aku.edu, pammla.petrucka@usask.ca

Received 18 December 2015; accepted 25 January 2016; published 28 January 2016

Copyright © 2016 by authors and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

The purpose of this study was to understand the concept of health promotion and perceptions related to the integration of health promotion in nursing practice in Pakistan. The study utilized the qualitative single case study approach to explore and describe the concept of health promotion, its significance and ways to integrate health promotion strategies in nursing practice. The data were collected from three different sources; focus group discussion among final year Post-RN BScN students, key informant interviews of practicing nurses, faculty, and MScN students, as well as a document review of the Post-RN BScN curriculum. Data analysis included a content and thematic analysis, yielding four major themes—"Health Promotion as Diverse", "Health Promotion as Necessary", "Health Promotion as Nursing Role", and "Health Promotion as a Strategic Imperative". Further, the findings highlighted the competencies, support mechanisms, and barriers which select nurses faced while integrating the health promotion strategies in practice.

Keywords

Health Promotion, Pakistan, Nursing, Integration

1. Introduction

According to the Ottawa Charter for Health Promotion (1986), health promotion is a process to help individuals and communities to gain increased control over the health in order to achieve holistic health (*i.e.*, physical, mental, and social-well-being) [1]. Health promotion is critical in addressing population health challenges rooted in social, physical, economic, and political context which require inter-sectoral efforts. There are five main

health promotion strategies including building healthy public policy, creating supportive environments, strengthening community action, developing personal skills, and reorienting health services. [2] The intent is to achieve empowerment and community development in order to achieve well-being. Through an inclusive approach which focuses on consideration of the determinants of health (such as income and social status, healthy child development, education, etc.) [3]. “Health promotion strategies are aimed at reducing differences in current health status and ensuring equal opportunities and resources to enable all people to achieve their fullest health potential” [1]. The nursing profession, although including health promotion as a core nursing competency, continues to lack a clear definition of health promotion other than to connect it to health education, prevention, counseling/advocacy, and empowerment [4]-[6].

It has been nearly four decades since the health care system of Pakistan formally adopted a Primary Health Care approach to promote health and prevent diseases. The strategy to achieve “Health for All” was articulated globally at that time. However, this goal has not yet been realized in Pakistan. As one of the top ten most populous countries, Pakistan’s people remain challenged by communicable and non-communicable diseases, insufficient health human resources, and a seemingly endless list of indicator failures. There are many contributing factors to this persistent dilemma, such as inadequate basic health care access, lack of education, as well as a range of socio-political issues. Whether one looks to poverty, literacy, or productivity, it is clear that there is a long way to go to achieving this desired end. This paper considers a research project which looked at the perceptions of select registered nurses in furthering the health promotion agenda in Pakistan through integration of health promotion into nursing practice.

Pakistan has an annual population growth rate of 1.59% concomitant with its high birth rate of 25.7/1000 [7]. The level of infant mortality rate is 69/1000 live births, under five mortality is 86/1000 live births, and maternal mortality rates are estimated at 170 per 100,000 live births [8]. One only needs to look at the impacts of insufficient investment in health at 2.8% Gross Domestic Product [9] and 2.4% for education yielding a 54.9% total adult literacy rate (male 66.6% and female 49.4%) [10]. Over one-quarter of the population earns less than one dollar per day—which gravely affects the ability to achieve the goal of “Health for All” [11]. In addition, the poor social status and low literacy is affected by the gender bias, with women often experiencing the realities of differential access to resources resulting in a negative propensity in their health indicators. [12] [13].

In 2012, Pakistan’s doctor patient ratio is 1/1000 and nurse patient ratio was 1.50/1000 people [14] [15]. Although there are significant deficits in the availability of access to health providers, there is evidence that these individuals potentiate a positive impact on the health status of their clients, families, and communities.

Many authors [16]-[18] have indicated that health promotion is an area where nurses have a great potential, but have traditionally been absent or silent. An integrative review by Kemppainen, Tossavainen & Turunen [19] affirmed nurses’ roles in health promotion as primarily disease prevention and increasingly as promoters of health.

In 2004, the Ministry of Health in Pakistan introduced the *National Action Plan for Prevention and Control of Non-communicable Disease and Health Promotion*, which mapped policy and implementation of the first health promotion/public health blueprint [20]. However, there continues to be a lack of evidence of the impacts of this action plan. A literature review, limited to English only articles published between 2010 and 2015, was done using the keywords “Pakistan”, and “health promotion”. Addition of the keyword “nurs*” reduced the article capture to less than ten articles, so we proceeded with the wider base. Two databases, Scopus™ and Ovid™, were searched yielding 108 and 70 articles respectively. On manual review of the Scopus™ search, 28 articles related to maternal, newborn, and child health, 11 related to health promotion interventions, 7 each related to disease specific efforts, smoking, and other (*i.e.*, evaluations, assessments, capacity building activities), and the 48 remaining were non-relevant or outside the search parameters. Only 17 of the 70 articles yielded on the Ovid™ search were relevant of which 11 were duplicates from the Scopus findings. Three of the new six articles were intervention based (all on the same project), two were smoking related, and one was conceptual. This clearly demonstrated a significant gap in the literature related to health promotion in Pakistan.

In this study, nurses’ concept(s) of health promotion and their perceptions about the significance of integration of health promotion in nursing practice in Pakistan were explored. In addition, the study examined the existing contexts, approaches, opportunities and barriers experienced by select nurses in attempting to integrate health promotion into their practices. Three study questions were posed. What is Pakistani nurses’ understanding about the concept of health promotion? Do Pakistani nurses perceive the need for integration of health promotion in nursing practice? How do Pakistani nurses integrate health promotion in nursing practice?

2. Method

This study was a descriptive single case study design. The Aga Khan University School of Nursing (AKUSON) in Karachi was selected as a single case because of its unique leadership role in nursing education and practice in Pakistan. The study would be classified as an instrumental case descriptor which provides initial insights into an issue [21]. Further, the research questions posed align with Yin's conjecture that case studies are the preferred strategy for "how" and "why" questions [22].

Purposive sampling was used with the following inclusion criteria:

- Students must be currently in their final semester of either the Post-RN Bachelor of Science in Nursing (BScN) or Masters of Science in Nursing (MScN) at the AKUSON in Karachi, Pakistan;
- Registered nurses were either employed as registered nurses and graduates from AKUSON, or employed as nursing faculty members and graduates from AKUSON, and
- Providing a voluntary informed written consent.

2.1. Data Collection and Analysis

As suggested by Zucker [23], it is important for multiple and chronological perspectives in a case study. In order to address these elements, the research team utilized three data collection methods; specifically, key informant interviews, focus group discussion, and a brief document review.

In the case of the key informant interviews, eight (8) participants were selected including 2 community health nurses, 2 acute care nurses at the AKU hospital, 2 MScN students at AKUSON, and 2 nursing faculty at AKUSON. All were affiliated with the AKUSON as graduates of the Post-RN BScN programme. The interviewer used a prepared guide which included eleven semi-structured questions used in each of the one on one interviews. All interviews were tape recorded and transcribed by the principal researcher. The average length of interview was 45 to 60 minutes.

In the case of the focus group discussion, participants included nine (9) final year Post-RN BScN students, representing half the cohort for that year of the program. The focus group discussion was conducted using a fifteen question/prompt guide developed specifically for this project and informed by the extant literature. Again, the session was recorded and transcription was completed by the principal researcher.

In terms of the document review, the elements were the composite parts of the AKUSON Post-RN BScN curriculum. The document review considered 15 course grids of the Post-RN BScN curriculum at AKUSON in order to determine the number of hours committed to health promotion across the program offerings.

Data analysis was primarily content analysis in accordance with Miles and Huberman's [24] steps of data reduction, data display, and conclusion/verification. Specific codes were used to cluster data with emergent categories and sub-categories made obvious. These were then used to generate a series of four over-arching themes. The themes were subsequently reviewed and reflected upon resulting in a tentative interpretation outlining relationships of the themes.

The credibility of the study was supported by an extensive literature review which highlighted extant evidence as well as the gaps in evidence based studies related to this topic. Additionally, the principal researcher's previous involvement in teaching and working in the area of community health and health promotion were integral to the study's credibility. Further, the use of triangulation of the multiple data sources strengthened the study's credibility. Transferability was enhanced through the collection of data from three relevant groups (*i.e.*, nursing students, faculty members, and practicing nurses). In addition, purposive sampling, and a continuous audit trail were imperative to potentiating transferability. Dependability was confirmed by review of transcription notes, cross-checking of emerging codes, as well as reflections and audit trail of the emergent issues/themes emanating from the focus group discussion and key informant interviews. Finally, confirmability was ascertained by the return to the literature to affirm or refute findings and interpretations.

2.2. Ethical Approval

Approval for the study was obtained through the Aga Khan University Ethics Review Committee.

3. Results

The research generated four major themes primarily from the key informant and focus group data. Each theme is

described herein and visualized in **Figure 1**. In addition, as this research progressed, it was made obvious that the participants were struggling to bring health promotion to the forefront of their roles as nurses, whether students, practitioners, or educators.

3.1. Theme One—Health Promotion as Diverse

Across all participants, the term “health promotion” was seemingly synonymous with the word “diverse”. Participants spoke of health promotion in terms of diversity in settings, life stage, and level of care. This diversity aspect stressed that health promotion can and should occur anywhere, with anyone, to address any of their concerns and health needs.

The participants spoke of the importance of an all-encompassing (holistic) approach to health promotion. They envisioned and clarified the definition of health promotion as:

- Promoting and maintaining well-being through lifestyle and environmental change;
- Promoting and maintaining quality of life; and
- Enabling people to become promotive and productive.

In the words of one key informant:

Health promotion is enhancing quality of life or taking up some strategies to improve the quality of your living, not physical health only, but enhancing quality of your life as social, physical, emotional, spiritual, and improving living experience as a whole.

3.2. Theme Two—Health Promotion as Necessary

The participants provided a passionate perspective on the imperative for health promotion within the Pakistan context. They emphasized the deficit position of the current context and the desire to move positively towards embedding health promotion for the good of all members of their society.

Through the dialogues, participants indicated that, through health promotion, there would be:

- Increased patient’s health education/awareness in community

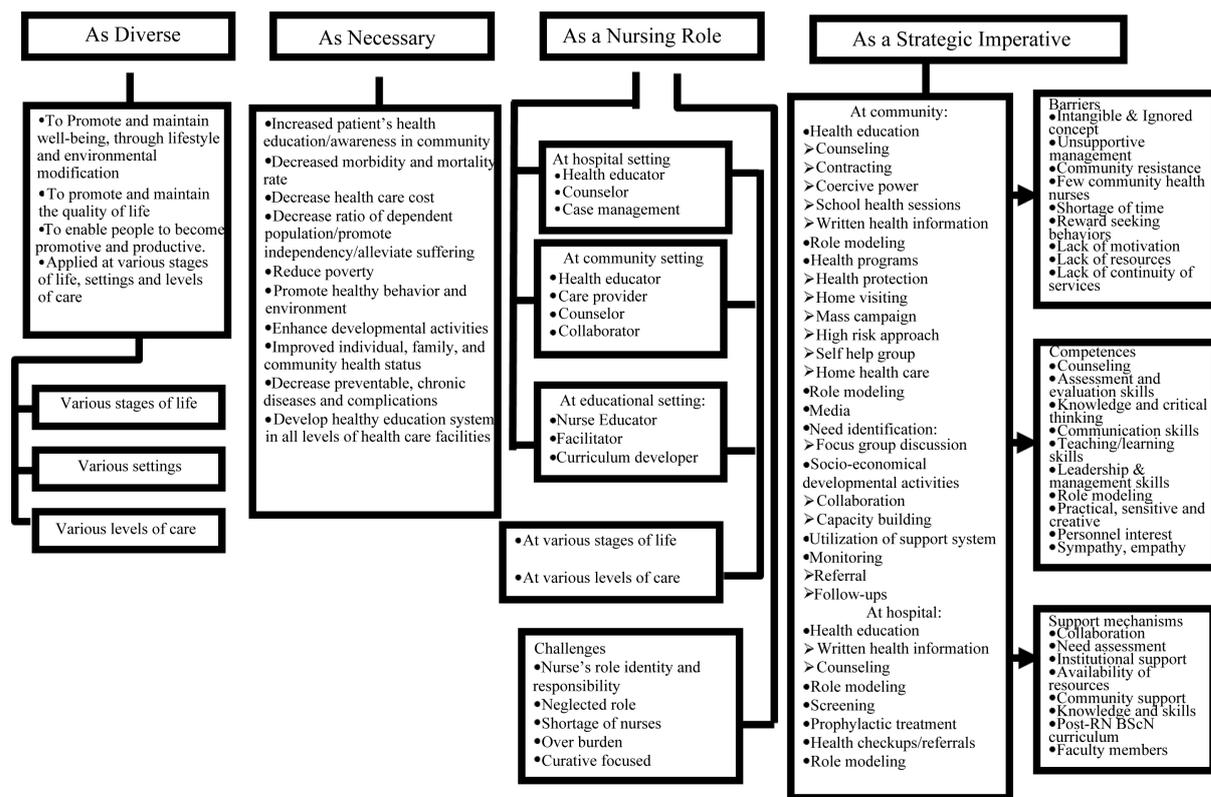


Figure 1. Framework: integration of health promotion in nursing practice.

- Decreased morbidity and mortality rate.
- Reduced health care cost and poverty.
- Increased healthy behaviors and environments.
- Enhanced developmental activities.
- Improved individual, family, and community health status.

Further, one key informant indicated that:

Health promotion is very important in our country than in other countries, as we cannot bear the expenses of illness or diseases. So if there is health promotion, then the financial burden will be less on individual as well as on government.

3.3. Theme Three—Health Promotion as a Nursing Role

Across both groups of informants, it was clearly articulated that nurses have a role and, in fact, are doing health promotion. This sentiment was most strongly voiced by the community nurse participants. Within this theme, participants mentioned the unique presence of nurses in three distinct settings (*i.e.*, hospital, community and educational institutions) where health promotion efforts may (and do) occur. It is noted that the role of health educator and counsellor in relation to health promotion were most commonly mentioned as occurring in hospital and community settings. Other health promotion roles mentioned by setting were case manager (hospital setting), collaborator (community setting), and facilitator (educational setting). This extended role into health promotion is being fostered, according to one participant, through the Post-RN and BScN programs which are introducing health promotion as a foundational nursing role.

In the words of one key informant:

Nurses can play a significant role by connecting the community, education, health, and social development. Therefore, I think a nurse with enhanced understanding about health promotion can play quite different roles in capacity ranging from grassroots level to the consultancy level.

3.4. Theme Four—Health Promotion as a Strategic Imperative

The final theme “Health Promotion as a Strategic Imperative” emerged during the discussion of challenges and opportunities for integrating health promotion into the various nursing settings. The participants mentioned that they were challenged in bringing health promotion to their practices due to shortages of time and staff, as well as a lack of focus on non-curative roles and responsibilities. Essentially, health promotion activities were described as a neglected aspect of the traditionally curative focused nursing environment as highlighted in the following contribution:

In Pakistan, nurses have lot of potentials and abilities to work for health promotion. However, the circumstances such as shortages, technical foci, and demands with the environment make it more difficult for nurses to spend their time in the health promotion activities and with the workload they are carrying at the moment, integrating health promotion is really very difficult.

3.5. Health Promotion: Nursing’s Next Frontier?

In the dialogues, there was an energy and momentum to articulate what is needed to facilitate the integration of health promotion into nursing. The emphasis was in two key areas—knowledge/skills/attitudes of practitioners and barriers/facilitators to integration.

Knowledge/Skills/Attitudes

It is noted, from the document review, that 14% (272 of 1939 hours) of the Post-RN BScN is devoted to health promotion core content. This knowledge stream may be increased to 26% with the selection of a health promotion senior practicum opportunity by any student.

The participants indicated that, in addition, to core nursing knowledge, there are a number of competencies necessary to the integration of health promotion strategies within nursing practice. Amongst those mentioned were:

- Assessment and evaluation skills.
- Counseling skills.
- Critical thinking.

- Communication skills.
- Teaching/learning skills.
- Leadership/management skills and
- Role modeling.

Through the dialogues and document reviews, a number of attitudinal attributes were revealed as important to the integration of health promotion into nursing practice including:

- Being practical.
- Sensitivity (including sympathy and empathy).
- Creativity.
- Demonstrating personal interest.
- Motivation and
- Respectfulness.

Barriers and Facilitators

The participants shared their perceptions on the barriers and facilitators to integration of health promotion into their nursing practices.

One of the most common challenges faced was that health promotion is intangible and an often ignored concept not only by the public but also by the health professional team and policy makers. The most common **barriers** experienced while integrating health promotion strategies, according to the participants, included:

- Unsupportive management.
- Community resistance.
- Lack of community health nurses.
- Unmet expectations.
- Shortage of time.
- Reward seeking behaviors.
- Lack of motivation, resources and utilization and
- Limited continuity of services.

Conversely, the participants spoke of a number of facilitative elements which foster the integration of health promotion strategies into their practices. The most common **facilitators** discussed included:

- Collaboration.
- Availability of information and resources.
- Institutional and community support.
- Nursing knowledge and skills.
- Post-RN BScN curriculum and
- Support of faculty members.

4. Discussion

There was extensive and passionate discussion by all participants with respect to how best to integrate nursing's presence in health promotion in Pakistan which resulted in articulation of essential nursing knowledge/skills/ attitudes as well barriers and facilitators to this progression. In addition, the findings were reviewed in relation to existing evidence.

4.1. Synthesis

The first theme of "Health Promotion as Diverse" is clearly reflected in other documents, such as the Northern Territory Department of Health [25] which emphasized that, at its essence, health promotion provides "supportive social, economic, and physical environment through diverse but complementary strategies and works in collaboration with a wide range of sectors" to empower individuals and populations to achieve their health needs under the rubric of the social determinants of health.

In relation to the second theme—Health Promotion as Necessary, there is significant alignment with many authors who speak of the benefits of health promotion's upstream approach which averts future health costs, improves overall health and well-being while minimizing loss of social capital to a society by reducing the burden of chronic diseases and addressing health inequities [26]-[29].

Moving forward with "Health Promotion as a Nursing Role" is reflected by Chiverton, Votava, and Tortoret-

ti's comment that "nurses in education, practice, and research settings can participate in the advancement of health promotion not only to the mainstream but to the forefront of nursing practice" [30].

Both key informant and focus group participants mentioned their understanding of the potential for nursing to undertake a more significant role in health promotion especially citing their awareness of the socio-economic determinants and community development capacities. The common strategies for health promotion in nursing practice mentioned by participants, regardless of setting, were health education, role modeling, and preventive measures. Overall, the prominent and frequent mentioned strategy reported in both the setting of hospital and community was health education. Of note, it was often acknowledged by the participants that, although as students they were integrating health promotion elements into their nursing care, once they were in practice they seldom integrated such strategies—which clearly indicates a knowledge to practice inconsistency.

According to the Council on Linkages between Academia and Public Health Practice [31], there are eight domains of competencies including analytical/assessment skills, policy development/program planning skills, communication skills, cultural competency skills, community dimensions of practices skills, public health science skills, financial planning and management skills, and leadership and systems thinking skills. There is close alignment of these domains with the knowledge, skills, and abilities outlined by the participants and extracted from the documents. Of note, aside from the public health science skills, and specifics such as financial planning systems thinking skills, the lists are highly synergistic.

4.2. Study Limitations

This is a single site, cross-sectional study with a limited number of participants. As stated by Merriam [32], findings of a case study are a part of a reality, so generalizations must be interpreted cautiously. Further, the AKUSON is a private university, a part of the Aga Khan Development Network, which may impact the student and alumni perspectives and practice values.

4.3. Summary

In reflecting on the four themes outline, it became apparent that they were inextricably linked to each other. As a result, a tentative framework (**Figure 1**) reflected the potential inter-relatedness of the themes as a way to integrate health promotion in nursing in Pakistan. The framework is an attempt to reconstruct the participants' understandings of the context in which they are providing care. It presents the essential elements of a guiding framework to embedding health promotion in a variety of nursing settings. The framework potentially highlights the theoretical and conceptual aspects necessary to integrate health promotion for nurses as well as provides insights into the essential knowledge, skills, and abilities as well as environmental barriers and facilitators to achievement of such integration. It succinctly depicts these key elements, their relationships and inter-relationships, and suggests a systematic way forward.

5. Conclusion

This study contributes to the evidence regarding health promotion and nursing in Pakistan, a topic which has enjoyed limited consideration in the literature. Four themes—Health Promotion as Diverse, Health Promotion as Necessary, Health Promotion as a Nursing Role, and Health Promotion as a Strategic Imperative—were derived from a series of key informant interviews and a focus group. Together with the participants' contributions on the knowledge/skills/attitudes and barriers and facilitators to integration of health promotion in nursing, a tentative framework was presented.

Acknowledgements

We wish to express sincere appreciation to the efforts of committee members Dr. Irma Gavino, Dr. Marjaneh Fooladi, Dr. Rozina Mistry, as well as English faculty members Dr. Sabiha Mansoor and Ms. Perviz Husain. In addition, M.A.V. thanks the following funding agencies: Farida Allana Research Award from Rho Delta Chapter, Sigma Theta Tau International and AKU Seed Money Grant for their sponsorship of this research.

References

- [1] World Health Organization (1986) The Ottawa Charter for Health Promotion: First International Conference on Health

Promotion, Ottawa.

- [2] Public Health Agency of Canada. http://www.phac-aspc.gc.ca/ph-sp/implement/implementation-eng.php#health_pro
- [3] Vancouver Coastal Health (2006) Towards a Population Health Approach: A Framework and Recommendations for Action. Vancouver Coastal Health, Vancouver. https://www.vch.ca/media/Toward_A_Population_Health_Approach.pdf
- [4] Burman, M.E., Hart, A.M., Conley, V., Brown, J., Sherard, P. and Clarke, P.N. (2009) Reconceptualizing the Core of Nurse Practitioner Education and Practice. *Journal of the American Academy of Nurse Practitioners*, **21**, 11-17. <http://dx.doi.org/10.1111/j.1745-7599.2008.00365.x>
- [5] Casey, D. (2007) Nurses' Perceptions, Understanding and Experiences of Health Promotion. *Journal of Clinical Nursing*, **16**, 1039-1049. <http://dx.doi.org/10.1111/j.1365-2702.2007.01640.x>
- [6] Institute of Medicine (2011) The Future of Nursing: Leading Change, Advancing Health. National Academies Press, Washington DC.
- [7] UNICEF (2012) Birth rates: Pakistan. http://www.unicef.org/infobycountry/pakistan_pakistan_statistics.html#123
- [8] UNICEF (2012) Maternal Mortality Rates: Pakistan. http://www.unicef.org/infobycountry/pakistan_pakistan_statistics.html
- [9] World Health Organization (2013) Health Expenditures: Pakistan. <http://www.who.int/countries/pak/en/>
- [10] National Institute of Population Studies (2013) Pakistan Demographic and Health Survey 2012-13: Preliminary Report. National Institute of Population Studies, Islamabad.
- [11] United Nations Development Program (2009) Human Development Report 2009—Population Living below \$1.25 a Day. <http://hdr.undp.org/en/content/population-living-below-125-ppp-day>
- [12] Pakistan Health and Education Foundation (2002). www.phaef.org/HEinPak.htm
- [13] World Development Report (2004) World Development Report 2001-2002: Making Services Work for Poor People. The World Bank, Oxford.
- [14] World Bank (2012) Nurses and Midwives (per 1000). <http://data.worldbank.org/indicator/SH.MED.NUMW.P3>
- [15] World Bank (2012) Physicians (per 1000). <http://data.worldbank.org/indicator/SH.MED.PHYS.ZS>
- [16] Delaney, F.G. (1994) Nursing and Health Promotion: Conceptual Concerns. *Journal of Advanced Nursing*, **20**, 828-835. <http://dx.doi.org/10.1046/j.1365-2648.1994.20050828.x>
- [17] King, P. M. (1994) Health Promotion: The Emerging Frontier in Nursing. *Journal of Advanced Nursing*, **20**, 209-218. <http://dx.doi.org/10.1046/j.1365-2648.1994.20020209.x>
- [18] Strout, K. (2012) Wellness Promotion and the Institute of Medicine's Future of Nursing Report: Are Nurses Ready? *Holistic Nursing Practice*, **26**, 129-136. <http://dx.doi.org/10.1097/HNP.0b013e31824ef581>
- [19] Kempainen, V.I., Tossavainen, K. and Turunen, H. (2013) Nurses' Role in Health Promotion Practice: An Integrative Review. *Health Promotion International*, **28**, 490-501. <http://dx.doi.org/10.1093/heapro/das034>
- [20] Ministry of Health, Government of Pakistan (2003) Planning Commission (Health) PC-1: National Action Plan for Prevention and Control of Non-Communicable Diseases and Health Promotion in Pakistan. www.physicalactivityplan.org/resources/Pakistan.pdf
- [21] Stake, R.E. (1995) The Art of Case Study Research. Sage Publications, Thousand Oaks.
- [22] Yin, R.K. (1994) Case Study Research: Design and Methods. 2nd Edition, Sage Publications, Newbury Park.
- [23] Zucker, D.M. (2009) How to Do Case Study Research. School of Nursing Faculty Publication Series. Paper 2. http://scholarworks.umass.edu/nursing_faculty_pubs/2
- [24] Miles, M.B. and Huberman, A.M. (1994) Qualitative Data Analysis. 2nd Edition, Sage Publications, Thousand Oaks.
- [25] Northern Territory Department of Health (2010) Health Promotion Strategic Framework 2011-2015. <http://www.health.nt.gov.au/library/scripts/objectifyMedia.aspx?file=pdf/66/68.pdf>
- [26] International Union for Health Promotion and Education (2002) The Evidence of Health Promotion Effectiveness. Shaping Public Health in a New Europe. A Report for the European Commission by the International Union for Health Promotion and Education. www.iuhpe.org/images/PROJECTS/ACCREDITATION/EHP_part1.pdf
- [27] World Health Report (2008) Primary Health Care—Now More than Ever. World Health Organization, Geneva.
- [28] Harper, T. and Oldenburg, B. (2009) Call for a National Charter for Health. Issue Paper, February 2009.
- [29] McQueen, D.V. and Jones, C.M. (Eds.) (2007) Global Perspective on Health Promotion Effectiveness. Springer Publishing, New York. <http://dx.doi.org/10.1007/978-0-387-70974-1>
- [30] Chiverton, P.A., Votava, K.M. and Tortoretti, D.M. (2003) The Future Role of Nursing in Health Promotion. *American*

Journal of Health Promotion, **18**, 192-194. <http://dx.doi.org/10.4278/0890-1171-18.2.192>

- [31] Council on Linkages between Academia and Public Health Practice (2014) Core Competencies for Public Health Professionals. http://www.phf.org/resourcestools/Documents/Core_Competencies_for_Public_Health_Professionals_2014June.pdf
- [32] Merriam, S.B. (1988) *Case Study Research in Education: A Qualitative Approach*. Jossey-Bass, San Francisco.

Abbreviations

AKU	Aga Khan University
AKUSON	Aga Khan University School of Nursing
BScN	Bachelor of Science of Nursing
MScN	Master of Science of Nursing
Post-RN	Postgraduate Studies for Registered Nurses