

## Public Abstract

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Title: Impact of maternal education and health awareness on child health in Kandahar province, Afghanistan.

Afghanistan is a land-locked mountainous country located in South Asia. According to World Bank (2013) data, it is home for to a population of 30.55 million. Afghans have lived under the condition of war from the Russian invasions from 1970s until 2002 with the collapse of Taliban. Conflict has continued until the current date in limited parts of Afghanistan. The long-lasting war has not only claimed millions of lives, but also devastated the basic infrastructure of the country. Afghanistan still suffers from poor health infrastructure, poverty, food insecurity, economic instability, and political turmoil. These factors made millions of other Afghans vulnerable to the threat of preventable diseases. This is particularly true of women and children, the most sensitive groups due to their social status. Children lack many opportunities in Afghanistan such as education, safe play areas, comfortable and secure family environment. Due to economic constraints of the families, children are often forced into child labor. Thus, Afghanistan does not have a pleasant reputation for children to live; except for some African countries, Afghanistan has one of the highest child mortality rates.

However, the current data trends identify positive changes in children's survival since the 1990s, when the under-5 child mortality rate was 179. The current child mortality rate is 91. The major contributors to achievements in the declining child mortality in the country include "increasing age at marriage, higher contraceptive use, lower fertility, better immunization coverage, improvements in the percentage of women delivering in health facilities and receiving antenatal and postnatal care" (Rasooly et al., 2013). Nevertheless, high under-child mortality rates in Afghanistan remain a grave challenge to the Ministry of Public Health.

The contemporary under-5 child mortality rate of 91 places Afghanistan at 16th among countries stricken by high under-5 child mortality. Afghanistan has the highest under-5 mortality rate outside 15 African nations (UNICEF, 2015). Nevertheless, underreporting of child mortality, particularly of female children and in rural areas, is a problem in the country (Viswanathan et al., 2010) and may change the current estimations of child mortality rates reported by UNICEF. In addition, Afghanistan has the highest prevalence of child malnourishment, ranking 9th with 27.4% malnutrition rate (UNICEF, 2014). Almost 20% of child mortality is attributed to vaccine-preventable diseases within Afghanistan (Ministry of Public Health [MoPH], 2015). Research findings show that lack of security and geographical inequalities further limit endeavors to provide optimal immunization coverage in the country (Mashal et al., 2007).

Due to scarcity of education and health literacy, women in Afghanistan frequently contact local religious healers to mitigate the symptoms of diseases. These religious healers make fraudulent claims regarding treatment of various diseases. Women generally ask for Taweez (writing prayers on piece of paper) for certain diseases, these Taweezes are then "consumed with water" or "sewn into the leather" or cloth and placed around the arm or neck of the patient (Grima, 2002). The patients do not contact health care facilities for seeking treatment and may wait for Taweez to show curative effects. Thus seeking various types of spiritual treatment even for acute and highly mortal infectious diseases from shrines or religious frauds lacks any health gain, fosters the severity of disease and delay in treatment.

Kandahar province is more conservative with having intricate traditional hierarchy approaches for various issues including health care. A disconnect between residents and health facilities (perhaps due to lacking of both trust and awareness, limited accessibility, fatalistic beliefs) may avert required prenatal visits and postnatal visits to a clinic, and may encourage homebirths in society.

In this research thesis, I explored the impact of maternal education, health awareness and autonomy on

maternal health supportive behaviors, child mortality and malnutrition. I investigated various aspects of the lives and circumstances of mothers to create a fuller picture of child health in Kandahar province.

The study included 159 eligible participants. The result of the study indicated that majority of the children were suffering from various forms of malnutrition. Infectious diseases contributed to the vast majority of hospitalization. In addition, 95.6 % of mothers in the study were having no formal education, almost all of them were housewives, and only few of them (4.4%) were able to make independent decision regarding their child health.

In general, the data from mothers indicated low utilization of preventive health services, suboptimal breastfeeding practices, a strong tendency towards utilization of spiritual and herbal remedies, and limited engagement of individuals for seeking modern care for both their children and themselves among mothers with low health awareness. Engagement of mothers in some cultural practices also poses threats to child health. The majority of participants (88.1%) reported that they feed their newborn baby immediately after birth with black tea, glucose, or both, before starting breastfeeding. In addition, 60.4% feed their newborn child with butter soon after the delivery. They believe that black tea and butter cleans the intestine of the child from unpleasant material. In fact, black tea and butter causes diarrhea in the newborn that may result in serious health outcomes if they delay in seeking proper health support for them.

Utilization of sleep medication was also alarming among participants. Most of the participants were involved in using Lomotil (known as green packet tablets among local individuals) for making their children fall asleep. Lomotil contains atropine (anti-cholinergic) and diphenoxylate (anti-diarrheal), and is prescribed in diarrheal diseases that are accompanied with abdominal spasms. One of the side effects of the drug is drowsiness. Due to the lack of information on side effects, they take advantage from the side effect of the drug and make their child sleep. Using thumb as a sucker is unfavorable practice that increases the chances of infection transmission among the children. Almost 33% of participants reported use of thumb as a sucker to make their child calm while they were crying. However, hand-washing practices in participants were not satisfactory

Overall I found good support for the role of health awareness and some support for the role of autonomy in predicting health supportive behavior. The result of the study showed that maternal health awareness was associated with better immunization behavior, adherence to WHO's breastfeeding guidelines, use of contraception, use of modern care for mothers and child, and the avoidance of spiritual and folk remedies. In addition, higher autonomy was associated with contraceptive use. However, I did not find the predicted associations of maternal health awareness with sanitation and hygiene behavior or with malnutrition in the child. Neither autonomy nor health awareness were associated with the number of births contrary to the hypotheses.

Health awareness was a strong predictor of health supportive behaviors that familiarize women with fundamentals of health, and enables them to explore appropriate mean to prevent or treat childhood illnesses. Planning comprehensive and culturally acceptable strategies that specifically focus on improving health awareness among women, and also addressing the social, cultural, and economic barriers on individual and community levels will highly contribute in reduction of child mortality. Therefore, maternal health awareness requires greater attention from the government and other stakeholder to encourage proper health-seeking and disease prevention practices, and avoid adverse feeding (food and drugs) practices that further deteriorate child health. Involvement of religious healers in health sector though an incentivized system may also contribute to child health by promoting health and establishment of a referral system. In addition, further studies are required to examine the effects of herbal medicine that are widely used for various treatment purposes in the province.