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Perceived Factors Of Delayed Hospitalization And Risks Of Infants' Death In Hospitals In Urban Lahore, Pakistan

Dr. Saeed Ahmad Watto[1] , Dr. Muhammad Umar[2] , Dr. Muhammad Farooq[3] , Dr. Muhammad Ramzan[4] , Ms. Samina Akhtar[5] , Kokeb Yasmin[6]

[1]Assistant Professor (Ph.D. Sociology), Department of Sociology, Lahore Leads University, Lahore (Pakistan). Email: saeedwatto64@gmail.com (Corresponding author)
[2](Ph.D. Sociology), Consultant, Women Development Department, Government of Punjab.
[3](Ph.D. Sociology), Directing Staff (Training & Administration), National Institute of Management, National School of Public Policy, Lahore
[4]Assistant Professor (Ph.D. Sociology), Institute of Social and Cultural Studies, University of the Punjab.
[5]Ph.D. Scholar (Economics), University of Lahore, Lahore.
[6]Assistant Professor, Department of Sociology, Government College Women University, Faisalabad.

Abstract

Objective: to identify the factors of delayed hospitalization leading to the perceived risk of infant death in hospitals.

Methods: data were collected from a random sample of 195 mother attendees of infants admitted to emergency departments of five selected public sector teaching hospitals, including one specialized hospital for children in Lahore, Pakistan. An interview Schedule was used for data collection. Information was gathered on the reported history of prehospitalization medical treatment provided to the infant patient, reported ailment status of the patient at the time of first medical examination in the hospital, level of satisfaction about the quality of medical treatment administered in the hospital, and the perceived risk of death in hospital.

Results: multiple logistic regression analysis was applied for data analysis. It revealed that the following four factors were independently associated with the perceived risk of in-hospital infants' death: (i) delayed admission to hospital; (ii) severe/critical ailment status on hospital admission induced by serious ailment condition; (iii) provision of adequate medical care in hospitals; and iv) trying traditional healing methods before admission of infants in the hospital.

Conclusions: The results indicated that delayed admission to the hospital was a significant risk factor for avoidable causes of infant deaths. The study demonstrated that trying traditional healing methods before admission to the hospital was an essential determinant of delayed hospitalization leading to the perceived risk of in-hospital infant deaths. Despite providing adequate medical care and health services in public sector hospitals, high risks of avoidable infant mortality in hospitals may be a significant public health policy issue. This study may provide insights into mothers' healthcare-seeking preferences before their ailing infants' hospitalization. Besides, it may also help to understand social and policy implications for reducing in-hospital infant mortality rates.

Keywords: Ailing Infants, Traditional Healing Methods, Prehospitalization Medical Treatment, Delayed Hospitalization, In-hospital Death.

Introduction

Infant deaths in hospitals have been variably on the rise across the developed and developing countries of the world (Herbert, Lee, Chandran, Rudan, & Baqui, 2012). In Pakistan, the death of infants in hospitals has reasonably increased despite improved healthcare facilities provided to ailing infants (Jehan et al., 2009). According to popular perceptions, doctors are held responsible for patients' death in hospitals due to their carelessness while administering medical treatment to critically ailing patients upon admission (Pronovost & Vohr, 2011). Depending upon the severity of the ailment of patients brought to the hospital's emergency department, the doctors have to start diagnostic procedures that may involve checking body temperature, blood pressure, X-rays including other necessary pathological tests as required. This diagnostic procedure may take some time before starting medical treatment. Regardless of the need for the diagnostic prerequisites of medical treatment, patients' parents and other relatives expect doctors to start medical treatment immediately without any delay. They may occasionally create a panicky situation in the hospital that may cause a violation of the hospital code of conduct. There might be chances that doctors have to face physical assault from the patient's attendants. Such a conflicting situation may push the doctor's refusal to attend to the patient.

Most of the time, the patients are brought to the hospital in critical condition at a belated stage, whereby the chances of in-hospital death of patients may increase despite providing all the possible best healthcare services. If the patients die in the hospital while administering medical treatment, the doctors are usually blamed for mishandling the patient. The doctors seem to be occasionally reluctant to entertain or even admit such a critically ailing patient depending on their chances of in-hospital death. Such a denial of healthcare services delivery may further cause public unrest without addressing the root cause of this issue, which is the tendency of delayed admission of patients in hospitals. Notably, the deaths of infants in hospitals may become a more sensitive issue for the parents and the hospital administration.

Primarily, this study intends to investigate mothers' tendencies/preferences of healthcare-seeking behavior causing delays in bringing their ailing infants to hospitals for medical treatment. It has been assumed that increasing delay in admitting ailing infants to hospitals to seek medical care may increase their chances of in-hospital deaths. Primarily, mothers are the primary care provider of their infants; therefore, their behavioral preferences for availing health care facilities for their ailing infants may be more relevant to be investigated. In this context, this study may suggest appropriate public health policy measures for changing mothers' healthcare-seeking behavior for their ailing infants. Resultantly, it may reduce the risk of in-hospital deaths of infants by bringing them to hospitals to get appropriate medical treatment before aggravating their ailment.

Delays in bringing ailing infants to hospitals may depend on varying reasons, such as mothers' perceptions about the nature of the ailment, the extent of severity, and possible immediate remedies based on their traditional health beliefs. Initially, mothers try various traditional remedies for treating their ailing infants (de Zoysa, Bhandari, Akhtari, & Bhan, 1998). If none of these remedies works and the

severity of the ailment increases with time, they consider consulting any general healthcare practitioner available within their own vicinity/locality. Even if it cannot be of any use and the ailing condition persists, parents, either on their own or advice of the general healthcare practitioner, bring their infant child to the hospital, preferably in the emergency or outdoor hospital department. The ailment may become more complicated and severe during this experimentation of different medical care options. In most cases, ailing infants are brought to emergency departments of hospitals in a critical condition that could be hardly manageable (de Souza, Peterson, Andrade, Gardner, & Ascherio, 2000). Such a delayed admission of patients, especially infants, in hospitals may increase the chances of their deaths in hospitals.

Similarly, mothers' preferences for selecting healthcare practices have also been variably influenced by the local culture of experimenting with traditional healing methods for treating their ailing infants. This process may start from the role of traditional and semi-skilled lady birth attendants to food preferences and treatment of health-related issues of both mothers and their newborn babies (de Souza et al., 2000). However, all the mothers may not uniformly demonstrate their preferences for availing of traditional healthcare facilities, including the hospitalization of their ailing infants for medical treatment. An attempt has been made to identify the factors that may explain the heterogeneity of mothers concerning their varying preferences of healthcare-seeking behavior for their ailing infants that may cause a delay in their hospitalization. Further, this study also examined the association, if any, among these factors causing delayed hospitalization of ailing infants leading to aggravation of their ailment and the risk of in-hospital deaths.

Statement of the Problem

The main focus of the study is to identify the reasons for delayed hospitalization of infants variably associated with the risk of aggravation of ailment and chances of their deaths after admission to the emergency department of hospitals. Due to trying different healthcare practices, including traditional healers, while staying at home, the ailing infants become more seriously sick if medication fails to work. After exhausting all such locally available options of medical treatment, most of the time, parents bring their ailing infants into emergency departments in hospitals in very critical condition with the expectation that doctors can save the life of their ailing children by treating them properly. At times, despite giving all possible medical treatment, the infants could not sustain their aggravated ailment and died in the hospital. In many cases, the blame for infants' in-hospital deaths is shifted to doctors.

Regardless the ailing infants have been brought in critical condition in the hospital, doctors do their level best by observing their professional ethics to save the life of the ailing infant under their treatment. It might not be surprising to the doctors that most cases are brought to the emergency department in critical condition. Therefore, without blaming the parents for this delayed hospitalization of their infants, they provide them with all the best available medical treatment. However, in case of the eventual death of the ailing infant in the hospital, parents may hardly refrain from blaming doctors. Professionally, the doctors try to make the parents of the deceased infant understand that medical error might be one of the many other reasons for death, including the delayed hospitalization of an infant with an acute and complex ailment. Parents may hardly be convinced that infants need specialized and immediate appropriate healthcare treatment. More delay in accessing healthcare facilities may increase the chances of aggravation of the ailment leading to the risk of death even if

hospitalized at the belated stage (De Silva et al., 2007).

Literature Review

Scientific studies across the globe demonstrated that hospitalized infants in critical condition at the belated stage were one of the major causes of in-hospital deaths. Besides, factors causing such a delayed hospitalization of infants had also been reported in the literature that helped to understand the theoretical underpinnings of the issue and determine the conceptual scope of this study. Statistics showed that 10 million plus children die every year, especially in developing countries, from diseases that had been treatable otherwise. Infant mortality has been a significant proportion of overall child mortality worldwide, particularly in developing countries.

Besides other factors, mothers' inability to recognize symptoms leading to severe illness and preferences to try traditional healing methods while staying at home delayed hospitalization for seeking appropriate health care (De Silva et al., 2007). Keeping on trying different traditional healing methods for curing the ailing infant was reported as a single major cause of aggravating aliment and high infant mortality rate (Jehan et al., 2009). This high infant mortality rate was likely to continue unless significantly greater efforts would not be made to control this trend. It indicates that the mothers' preferences of seeking health care for their ailing infant child may variably predict the risk of aggravated ailment, delayed hospitalization, and subsequent in-hospital infant mortality.

The association of patients' deaths in hospitals with getting delayed medical care in hospitals may not be limited to infants only. Instead, it might be equally applicable to adults as well. A sample study of ailing men (76%) and women (24%) admitted in 6 hospitals in Greek urban and rural regions substantiated this proposition. It was found that the patients who died in hospitals were brought to hospitals at the more delayed stage of their ailment compared to those who survived. The study identified three primary reasons for delayed hospitalization, i.e., misunderstanding the seriousness of the symptoms of the disease, psychological denial of the problem, and apprehensions about the implications in case of hospitalization (Pitsavos, Kourlaba, Panagiotakos, & Stefanadis, 2006). A sample study consisting of 2177 heads of households selected from the rural district of Bangladesh demonstrated that delayed decision to get medical healthcare from hospitals was significantly associated with patients' perceived seriousness of their ailment and trying different traditional healing methods before their hospitalization (Killewo, Anwar, Bashir, Yunus, & Chakraborty, 2006). In addition, the varying socioeconomic background of patients had no significant relationship with their delayed hospitalization for seeking health care from hospitals and getting medical treatment from traditional healers. Their inability to assess the severity of illness, preferences of getting medical treatment from traditional healers at the first instance, and lack of money appeared as the significant factors causing delayed hospitalization of patients.

Case studies were conducted on children suffering from pneumonia to explore why they died after hospitalization in rural hospitals in Uganda. Findings revealed that almost half of pneumonia victims' deaths were in hospitals compared to one-third of deaths at home (Källander et al., 2008). Inappropriate treatment of pneumonia, delays in getting medical care, and inferior quality of medical care of children patients with fatal pneumonia were found to be three primary reasons for the significant proportionate of in-hospital deaths of children suffering from pneumonia. Besides, delay in getting medical treatment for infants aggravates the ailment, increasing the risk of death and the cost of medical care (Quimbo et al., 2008). Parents sometimes had to lose both, i.e., their

financial resources and their infants, in case they died in hospitals. Precious hospital resources such as services of doctors and para-medical staff, medicines, and budgetary allocations consumed for medical treatment of critically ailing infants go to waste due to delayed hospitalization leading to in-hospital deaths.

Gender differences were significantly observed among the TB patients dwelling in rural Bangladesh concerning their medical treatment-seeking behaviors in an epidemiological context. The study revealed that women TB patients were significantly delayed in visiting medical health centers for medical treatment compared to men (Ahsan et al., 2004). The delay duration in visiting health centers was associated with sociocultural reasons such as preferences of receiving treatment from traditional healers and even self-medication at home. A study of sampled households (n=333) in Nigeria revealed that patients preferred delayed hospitalization with the hope of subsiding illness without getting medical treatment (Tanimola & Owoyemi, 2009). It was also found that patients with low-income strata were more inclined to delay getting medical treatment from health centers/hospitals than high-income groups. Resultantly, their illness turned more aggravated with the increased cost of medical treatment.

Survey data gathered from ever-married women (age 13-49) in 2001 by Bangladesh Maternal Health Services and Maternal Mortality Survey depicted that perceived medical cost. It pronounced socioeconomic disparities as the most reported (75%) barriers hindering access to medical health care for life-threatening complications of ailment (Koenig et al., 2007). Particularly delay in seeking maternal health care was reported in rural and urban Bangladesh. Similarly, in rural and urban settings of Western Ethiopia, delayed healthcare-seeking behavior was significantly prevalent among patients suffering from pulmonary tuberculosis (Wondimu, Kassahun, & Getachew, 2007). However, patients from rural areas were delayed more than those who belonged to urban settings. Besides, delayed initiation of medical treatment of patients after approaching the health centers was also the primary reported reason for getting delayed medical treatment. Delay in the initiation of medical treatment of patients in hospitals was another major reported factor which was relatively on the higher side compared to the patients' delay in approaching the hospitals.

Deliberate avoidance of modern medical care facilities and reliance on traditional medicines and healers were significant reasons for the deaths of women patients brought to hospitals in Cape Verde. However, unawareness about the severity of symptoms and the affordability of getting modern medical care were insignificantly reported by the people closely associated with the women patients who died in hospitals (Wessel et al., 2004). The delay in modern medical care significantly contributed to the avoidable deaths of women patients in hospitals. An empirical study showed that the perceived high cost of modern health care significantly contributed to patients' preferences for self-medication (Asenso-Okyere, Anum, Osei-Akoto, & Adukonu, 1998). Resultantly, it compels patients to avoid hospitalization, further aggravates ailment, and increases the cost of medical care for the patients. In Vietnam, tendencies of self-diagnosis and self-medication by malaria patients significantly contributed to delayed medical treatment from primary healthcare centers (Giao, de Vries, Binh, Nam, & Kager, 2005). Data collected from a sample of cardiac patients admitted in six sampled hospitals in Greece revealed that patients had to vary delayed duration to reach hospitals after the onset of cardiac symptoms. It was found that the patients who got medical treatment with more delayed hospitalization died more than the survivors who reached the hospital with comparatively less delay (Pitsavos et al., 2006).

Besides, the decisions of the patients to seek medical care were more significantly based on the experiences of patients and what they feel because of illness; instead, they know about their illness (Morgans, Archer, & Allen, 2008).

In Hong Kong, newly diagnosed pulmonary TB patients reported that their adverse social conditions and non-specific presentations caused their prolonged delay in reaching the hospital to get medical care (Leung, Leung, & Tam, 2007). Besides, two separate cross-sectional studies were conducted in rural China to determine the impact of gender differences on tuberculosis knowledge and TB patients' healthcare-seeking behavior. The study revealed that older and unemployed patients reported they delayed diagnosis of ailment (Wang, Fei, Shen, & Xu, 2008). However, men patients were more likely to get information about the symptoms of TB and share the same with others by taking the initiative compared to women patients of TB. Further, women patients preferred to visit lower-level non-hospital health facilities in villages like village clinics and drug stores. Such social conditions significantly contributed to delays in health care seeking from hospitals.

A literature review helped identify different reasons for delayed oral cancer diagnosis, mainly classified into two categories. The reasons for delayed diagnosis and initiating medical treatment were grouped into two categories were identified as: i) delay on the part of the patients themselves and ii) delay due to the system for initiating medical treatment after the first time observing the symptoms of disease (Donnell, Jin, & Zavras, 2008). Further, the delay in initiating medical treatment of the ailing patient was divided into five stages. These five stages of delay were: i) appraisal stage- first time recognition of unexplained symptoms of the disease by the patients themselves; ii) illness stage- this is the duration between deciding to get medical treatment and first time realization of ailment; iii) behavioral stage- the time taken to get an appointment with the medical practitioners after deciding to seek medical treatment for curing the ailment; iv) the time consumed between a scheduled appointment with a medical practitioner and actual first contact of patients with him for getting medical treatment; and finally v) treatment stage- duration of time spent in the actual start of medical treatment after first time getting the attention of the professional medical practitioner (Donnell, Jin, & Zavras, 2008). The first three stages had been identified as the 'delay associated with the patient' and the last two as the 'delay associated with the healthcare professionals.

Overall, the studies on delayed healthcare-seeking behavior revealed different reasons for the delay in getting medical treatment from a professional healthcare practitioner. It was a process consisting of multiple stages marked with patients' behavioral underpinnings and structural barriers of the medical healthcare system. These reasons could be summed up as: i) patients' personal perceived assessment about the symptoms and severity of their ailment; ii) lack of knowledge about the nature of ailment; iii) diverse socioeconomic background associated with the affordability of perceived cost of medical treatment; iv) tendencies and health beliefs influencing preferences to avail traditional healing practices including self-medication before consulting professionally trained healthcare practitioners; v) distance of modern healthcare facilities such as primary healthcare centers, secondary and tertiary level hospitals; vi) means and affordability of transportation to access health care centers/hospitals; vii) availability of diagnostic facilities in community of patients; viii) finally, patients' social and cognitive conditions influence their interpretation of the symptoms of ailment and make them decide to consult a professional healthcare practitioner for curing their ailment at the first instance. These reasons for the pre-

hospitalization delay in getting medical treatment from a professional medical practitioner were mainly attributed to the stages labeled as appraisal, illness, behavioral, scheduling, and treatment of ailing patients. Different pre-hospitalization ailment management practices associated with these stages cause a delay in getting timely and appropriate medical treatment from a professional healthcare practitioner, causing the risk of in-hospital deaths of patients. (Donnell et al., 2008). Given this empirical evidence-based theoretical context, the conceptual scope of this study was developed and tested in the urban settings of Lahore.

Research Design

Population

The population of this study was mother attendees of all infants admitted to emergency departments of five selected public sector teaching hospitals, including one specialized hospital for children in the metropolitan city of Lahore, Pakistan. Since emergency departments of hospitals have limited capacity for admitting patients, all the mothers of infants admitted to the emergency department on the day of the visit to the selected hospitals were included in the sample size. However, mother attendees of ailing infants were selected as respondents of this study by seeking their consent through male family members accompanying them in the hospital. Initially, the respondents were reluctant to give an interview because of mental stress and engagement in attending to their ailing infant under medical treatment. A total of 195 respondents could be interviewed for data collection.

Mothers have been emotionally and culturally the full-time care providers of their infant children who closely monitor their growth and health status. Further, mothers' health beliefs and healthcare-seeking behavior may affect their preferences for selecting their ailing infants' medical treatment mode. Mothers' preferences for medical care for their babies may be attributed to preventable causes of neonatal deaths, as 74% of neonatal deaths occur in the first week of life (Akbar et al., 2021). Presumably, mothers having diverse socioeconomic backgrounds have varying health beliefs driven by healthcare-seeking preferences for selecting their ailing infants (Tanimola & Owoyemi, 2009).

Mothers could be the most suitable population for this study as their infants' immediate and primary caregivers. Mothers have a significant role in identifying and interpreting the symptoms of an ailment, showing concerns regarding the need to consult any healthcare provider and available traditional healthcare facilities nearby their residences. Besides, they have been involved and engaged with all the stakeholders and processes for seeking medical treatment for their ailing infants. Therefore, mothers could be able to explain all the reasons and processes causing a pre-hospitalization delay in getting professional medical treatment for their ailing infants.

Data Collection

Data were collected from a random sample of 195 mother attendees of infants admitted to emergency departments of five selected public sector teaching hospitals, including one specialized hospital for children in Lahore, Pakistan. An interview Schedule was used for data collection. Information was gathered on the reported history of prehospitalization medical treatment provided to the ailing infant patient, the reported ailment status of the patient at the time of first medical examination in the hospital, level of satisfaction about the quality of medical treatment administered in the hospital, and the perceived risk of death in hospital (Suchman, 1966). The theoretical framework of this study was derived from the classification of healthcare seeking process into five stages causing delays in getting medical treatment from a professional healthcare practitioner (Donnell, Jin, & Zavras,

2008). Using this theoretical framework, a semi-structured Interview Schedule was developed for interviewing a randomly selected 195 mothers of infants admitted in the emergency department of the selected tertiary level hospitals in urban settings of Lahore.

Results

The multivariate analysis procedure was used for data analysis applied on four variables that presented a P of less than 0.20 in the bivariate analysis. All four variables were significantly associated with the perceived risk of infant death in hospitals. These four variables are delayed hospital admission; severely reported ailment status on admission, satisfactory in-hospital treatment; and trying traditional healing methods before admission to the hospital (Table 1). The application of multiple logistic regression analysis demonstrated that the four factors reported in Table 1 were independently associated with the perceived risk of infant death in the hospital after admission to emergency departments. These four factors were: delayed admission in the hospital (OR = 2.39; 95% CI=1.13-5.12), severe reported ailment status reported by doctors to the attendee mothers of the ailing infant on hospital admission (OR=10.83; 95% CI=4.71- 23.83), mothers' perceived satisfactory medical treatment provided to their ailing infants in hospitals (OR=9.97; 95% CI = 3.23-19.95) and trying traditional healing methods for treating ailing infants while staying at home before admission in hospital (OR=3.24; 95% CI=1.12-8.91).

Table 1. Result of the multivariate analysis* for Variables associated with Perceived Risk of Infants' Death in Hospital

Variables	P	Odds ratio	95% CI
Delayed admission to the hospital	0.01	2.39	1.13 – 5.12
Severe reported ailment status on admission	0.0001	10.83	4.71 – 23.83
Perceived satisfactory in-hospital treatment	0.0001	9.97	3.23 – 19.95
Trying traditional healing methods before admission	0.007	3.24	1.12 – 8.91

* Analysis of 195 pairs (conditional logistic regression)

Conclusion

Delayed admission to the hospital appeared as an essential risk factor for avoidable causes of infant deaths. The study demonstrated that trying traditional healing methods before hospital admission was an essential determinant of delayed hospitalization leading to an increased risk of in-hospital infant deaths. Despite providing a satisfactory level of medical care and health services in public sector hospitals, high risks of avoidable infant mortality in hospitals may be a severe public health policy issue (de Souza et al., 2000).

Policy Implications

An increasing number of critically ill infants brought to emergency departments of hospitals adds a manifold burden on healthcare facilities and care providers. The sick and unstable infants admitted to emergency departments require continuous monitoring of their ailment status and administering immediate medical treatment. The limited capacity of beds and other healthcare facilities available in emergency departments,

special care units (SCUs), and intensive care units (ICUs) may cause a delay in administering the necessary medical treatment to critically ill infants after their admission to hospitals (Khan et al., 2016). Such a delay in administering medical treatment to infants may also contribute to increasing the in-hospital death toll of infants (Khan et al., 2016). Despite substantial financial resource allocations and spending for improving healthcare facilities in emergency departments, hospitals may hardly contribute to decreasing the number of infant deaths in hospitals until the delayed healthcare-seeking behavior of mothers of ailing infants has not been changed. This study may help understand the complex behavioral, social, and system-related causes of delay operative in the delay of admitting ailing infants in hospitals to avoid their risk of in-hospital deaths. It may also help develop behavior change and communication strategies for health education of mothers of infants and medical health practitioners within the indigenous sociocultural context.

References

1. Ahsan, G., Ahmed, J., Singhasivanon, P., Kaewkungwal, J., Okanurak, K., Suwannapong, N., . . . Belayetali, K. (2004). Gender difference in treatment-seeking behaviors of tuberculosis cases in rural communities of Bangladesh. Southeast Asian Journal of Tropical Medicine and Public Health, 35, 126-135.
2. Akbar, R., Azam, N., Raza Mughal, F. A., Rahman, M. U., Tariq, A., & Wajahat, M. (2021). ANTENATAL CARE AND NEONATAL MORTALITY AND MORBIDITY IN THREE HOSPITALS OF PUNJAB, PAKISTAN. Pakistan Armed Forces Medical Journal, 71(2).
3. Asenso-Okyere, W. K., Anum, A., Osei-Akoto, I., & Adukonu, A. (1998). Cost recovery in Ghana: are there any changes in health care seeking behaviour? Health policy and planning, 13(2), 181-188.
4. De Silva, D. A., Ong, S.-H., Elumbra, D., Wong, M.-C., Chen, C. L., & Chang, H.-M. (2007). Timing of hospital presentation after acute cerebral infarction and patients' acceptance of intravenous thrombolysis. ANNALS-ACADEMY OF MEDICINE SINGAPORE, 36(4), 244.
5. de Souza, A. T., Peterson, K., Andrade, F., Gardner, J., & Ascherio, A. (2000). Circumstances of post-neonatal deaths in Ceara, Northeast Brazil: mothers' health care-seeking behaviors during their infants' fatal illness. Social science & medicine, 51(11), 1675-1693.
6. de Zoysa, I., Bhandari, N., Akhtari, N., & Bhan, M. K. (1998). Careseeking for illness in young infants in an urban slum in India. Social science & medicine, 47(12), 2101-2111.
7. Donnell, A., Jin, S., & Zavras, A. I. (2008). Delay in the diagnosis of oral cancer. J Stomatol Invest, 2(1), 15-26.
8. Giao, P. T., de Vries, P. J., Binh, T. Q., Nam, N. V., & Kager, P. A. (2005). Early diagnosis and treatment of uncomplicated malaria and patterns of health seeking in Vietnam. Tropical Medicine & International Health, 10(9), 919-925.
9. Herbert, H. K., Lee, A. C., Chandran, A., Rudan, I., & Baqui, A. H. (2012). Care seeking for neonatal illness in low-and middle-income countries: a systematic review. PLoS medicine, 9(3), e1001183.
10. Jehan, I., Harris, H., Salat, S., Zeb, A., Mobeen, N., Pasha, O., . . . Goldenberg, R. L. (2009). Neonatal mortality, risk factors and causes: a prospective population-based cohort study in urban

Pakistan. Bulletin of the world Health Organization, 87(2), 130-138.
11. Källander, K., Hildenwall, H., Waiswa, P., Galiwango, E., Peterson, S., & Pariyo, G. (2008). Delayed care seeking for fatal pneumonia in children aged under five years in Uganda: a case-series study. Bulletin of the world Health Organization, 86(5), 332-338.
12. Khan, B. A., Shakeel, N., Siddiqui, E. U., Kazi, G., Khan, I. Q., Khursheed, M., . . . Adel, H. (2016). Impact of delay in admission on the outcome of critically ill patients presenting to the emergency department of a tertiary care hospital from low income country. Journal of Pakistan Medical Association, 66(5), 509.
13. Killewo, J., Anwar, I., Bashir, I., Yunus, M., & Chakraborty, J. (2006). Perceived delay in healthcare-seeking for episodes of serious illness and its implications for safe motherhood interventions in rural Bangladesh. Journal of health, population, and nutrition, 24(4), 403.
14. Koenig, M. A., Jamil, K., Streatfield, P. K., Saha, T., Al-Sabir, A., Arifeen, S. E., . . . Haque, Y. (2007). Maternal health and care-seeking behavior in Bangladesh: findings from a national survey. International family planning perspectives, 75-82.
15. Leung, E. C., Leung, C., & Tam, C. (2007). Delayed presentation and treatment of newly diagnosed pulmonary tuberculosis patients in Hong Kong. Hong Kong Medical Journal, 13(3), 221.
16. Morgans, A., Archer, F., & Allen, F. (2008). Patient decision making in prehospital health emergencies: Determinants and predictors of patient delay. Australasian Journal of Paramedicine, 6(3).
17. Pitsavos, C., Kourlaba, G., Panagiotakos, D. B., & Stefanadis, C. (2006). Factors associated with delay in seeking health care for hospitalized patients with acute coronary syndromes: the GREECS study. Hellenic J Cardiol, 47(6), 329-336.
18. Pronovost, P. J., & Vohr, E. (2011). Safe patients, smart hospitals: how one doctor's checklist can help us change health care from the inside out: Soc Nuclear Med.
19. Quimbo, S., Florentino, J., Peabody, J. W., Shimkhada, R., Panelo, C., & Solon, O. (2008). Underutilization of social insurance among the poor: evidence from the Philippines. PLoS One, 3(10), e3379.
20. Suchman, E. A. (1966). Health orientation and medical care. American Journal of Public Health and the Nations Health, 56(1), 97-105.
21. Tanimola, M. A., & Owoyemi, J. O. (2009). Healthcare-seeking behaviour in Anyigba, North Central, Nigeria. Research Journal of Medical Sciences, 3(2), 47-51.
22. Wang, J., Fei, Y., Shen, H., & Xu, B. (2008). Gender difference in knowledge of tuberculosis and associated healthcare seeking behaviors: a cross-sectional study in a rural area of China. BMC public health, 8(1), 1-7.
23. Wessel, H., Reitmaier, P., Dupret, A., Rocha, E., Cnattingius, S., & Bergström, S. (2004). Health-seeking patterns among fatally ill Capeverdian women. African Journal of Reproductive Health, 176-187.
24. Wondimu, T., Kassahun, W., & Getachew, S. (2007). Delay in initiating tuberculosis treatment and factors associated among pulmonary tuberculosis patients in East Wollega,

Western Ethiopia. Ethiopian Journal of Health Development, 21(2), 148-156.