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RESEARCH ARTICLE

Prevailing familial, social and cultural obstacles in keeping tobacco-free homes in urban areas of Bangladesh: A mixed-method study

Md. Imdadul Haque¹, ABM Alauddin Chowdhury, Muhammed Shaikh Hassan, Haife T. A. Khan, Md. Golam Dostogir Harun

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Type 2 diabetes mellitus: a risk indicator for colorectal cancer

Sabrina Ahmed^{1*}, Salamat Khandker², A. B. M. Alauddin Chowdhury³, Naym Uddin Roby³, Katsuyuki Miura⁴, M. S. A. Mansur Ahmed⁴

¹Department of Public Health, Shiga University of Medical Science, Shiga, Japan

²Department of Public Health, Daffodil International University, Dhaka, Bangladesh

³Department of Public Health, North South University, Dhaka, Bangladesh

⁴Department of Noncommunicable Diseases, Bangladesh University of Health Science, Dhaka, Bangladesh

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*Correspondence:

Dr. Sabrina Ahmed,

E-mail: sabrina.judy@gmail.com

Prepared by



Department of Public Health
Daffodil International University

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1. INTRODUCTION

In an unprecedented way, the need for sustainable and inclusive approach of development upsurges in all the horizons of living and non-living things across the trans-boundaries of planet. Particularly, in the post-2015 global agenda, our vision has scaled up due to the historic achievement in terms of saving human lives and other living organisms. On the ground of profound optimism, the global leaders set the 17 ambitious goals including health dedicated SDG-3 termed as “Ensure healthy lives and promote well-being for all”. There are 9 indicators within this goal including Universal Health Coverage (UHC) which has gained momentum across the globe.

On moving towards achieving that SDG-3, there is no alternative to investing more resources in research works. All the associated stakeholders must act on investment in research. As an academic institution, Daffodil International University always shares its strong commitment towards building pro-research environment. In response to that Department of Public Health has been striving for creating pro-research attitude of the students and faculties and producing number of quality research works in each year. The demonstration of the research works is vividly recognized from the concerned authorities of DIU family. This report is prepared for documenting the research works are contributing to the local and global development agenda, particularly, achieving SDG-3 and on the way to submit to the international journals aiming at keeping a significant role in policy formulation regarding SDG-3.

2. OBJECTIVES OF THE REPORT

It aims at disseminating our knowledge contributions to the move towards achieving SDG-3.

3. LIST OF THE RESEARCH ARTICLES

Research Paper-01

3.1. Smoking behavior among Tuberculosis relapse cases attended at tertiary level hospitals in Dhaka city of Bangladesh

Journal: Published in International Medical Journal, Japan 2019

Abstract – Bangladesh is a high Tuberculosis (TB) burden country particularly due to the burden of drug resistant TB. Smoking increases the risk of relapses of TB, which remains to be explored in the context of Bangladesh. This case-control study was conducted in two tertiary level hospitals in Dhaka City to determine the association between smoking habit and relapse tuberculosis (TB). The study population was the registered adult TB patients who got complete treatment within 2-5 years. Relapse and non-relapse TB cases are listed serially in the hospital record books. The relapse cases were selected randomly as case group and age-matched (± 2 years) with the respondent of the case group, cured patients were included as control groups. A total of 170 respondents in each case and control groups were selected with 80% power and assuming 14% differences between cases and controls. The selected respondents who visited the respective hospitals on the scheduled day were interviewed face to face for data collection. The mean age of the participants was 39.7 ± 11.56 years. Significantly ($\chi^2=20.767$; $p=0.000$) a higher proportion of the relapse cases were found among the respondents who got complete TB treatment 3 years before in comparison to that of the control group. Family size more than five, education of secondary level, two earning members in the family, past smoker, smoked more than 10 cigarettes per day and exposure to second-hand smoking were found to be significantly associated with a higher proportion of relapse cases. Regression analysis revealed that exposure to second-hand smoking and past smokers was 2.4 and 2.0 times respectively more likely to develop relapse TB. Thus, this study concluded that past smoking habit and exposure to second-hand smoking had the strongest likelihood of developing more TB relapse cases.

Research Paper-02

3.2. Knowledge and attitudes associated with Menopause among women aged 45-60 years: A pilot study among rural and urban women in Bangladesh.

Journal: Published in *Menopause: The Journal of The North American Menopause Society 2020*

Abstract

Objective: To assess knowledge and attitudes associated with the menopause transition among women in Bangladesh.

Methods: A cross-sectional survey was conducted among women (age range 45-60 y), 160 participants were selected from both urban and rural settings using a systematic sampling procedure. We used face-to-face interview techniques employing a semi-structured questionnaire. Bivariate and multivariate regression analyses were done to assess the associated factors.

Results: Around one-fourth (23%) of the participants did not have a basic understanding about symptoms of menopause. Knowledge about menopause increased proportionately with higher education levels (primary education, risk ratio [RR] ¼ 3.91, 95% confidence interval [CI] ¼ 0.66-22.92; secondary education, RR¼6.10, 95% CI¼1.26-29.41; higher education, RR¼6.74, 95% CI¼1.33-34) and was more common among urban than rural women (P¼0.001). In addition, women who were service holders had greater knowledge about menopause compared with women who worked in the home (RR¼8.67, 95% CI¼1.94-38.58). Most of the women (96%) suffered from different kinds of depression during the menopause transition. Key barriers to gaining knowledge about menopause included access to information (63%), social stigma (57%), and shame (52%).

Conclusions: Menopause is a neglected issue in Bangladesh. Accurate and appropriate information regarding pre-menopause and menopause can help women cope with this life transition. Social and familial support may also lay a role in minimizing isolation and depression. Public health messaging to increase awareness and knowledge about menopause should be undertaken to overcome the stigma and shame associated with menopause in Bangladesh.

Research Paper-03

3.3. ‘Nutritional Status of Adolescent Girls in a Selected Secondary School of North-Eastern Part of Nigeria’

Journal: Accepted in *Middle East Journal of Rehabilitation and Health Studies* 2020

Abstract

Introduction: Adolescence is the most critical period of human life when transition from childhood to adulthood occurs. The nutritional status of adolescents contributes significantly to their health and under-nutrition is one of the major global health problems faced by developing countries. This study aimed to investigate the nutritional status of adolescent girls in the selected secondary school in Nigeria. **Methods:** A descriptive cross-sectional study was conducted among adolescent girls. A Systematic sampling was adopted to collect the data from 250 adolescent girls using semi-structured questionnaire. Anthropometric measurements of the participants were taken to determine their nutritional status. The data were analyzed using SPSS ver-20, and the Pearson Chi-square test was performed to explore the association between variables.

Results: The mean age of the adolescent girls was 15.9 ± 0.892 years and majority (53.2%) of them were SS 1 students. The mean monthly family income of the participants was 44,696 Naira, where around three-fifths (59.2%) of their fathers were job holders (public & private). More than half of the adolescent girls had normal weight (54.0%), however 36% of them were underweight (36.0%), and only 4.8 % of the adolescent girls were obese. Following socio-demographic factors had highly significant association with the BMI of adolescent girls: age 16 years and over ($P<0.001$), class of the students (SS 1) ($P=0.007$), monthly family income ($P<0.001$), mothers’ educational status ($P<0.001$) and living areas (rural) ($P<0.001$).

Conclusion: The study revealed that nearly two-fifths of the adolescent girls were underweight indicating a serious public health concern. Early nutritional screening and interventions can improve the nutritional status of the school going adolescent girls. Further study covering large population is highly desirable to explore the severity of the problem in the national context.

Research Paper-04

3.4. Prevailing Familial and Socio-cultural barriers in Keeping Tobacco Free Homes: A comparative cross-sectional Study among Urban and Rural Tobacco users in Bangladesh.

Journal: Accepted in *BMJ Open* 2020.

Abstract

Millions of children and others across the world are being dangerously exposed to tobacco smoke and toxins in their own homes. Whilst there is limited interest in laws and interventions controlling tobacco use in public places in Bangladesh, no attention has been given to preventing tobacco-use inside homes. This study explores the familial and socio-cultural factors that provide obstacles for ensuring tobacco-free homes in Bangladesh.

Materials and methods

A mixed-method design was adopted and from among the 1,436 tobacco users identified in a population of 11,853, 400 (tobacco users) were selected for cross-sectional survey. This survey involved a probability proportional sampling procedure, and 24 In-Depth Interviews. Multivariate logistic regression was performed to explore the association of familial and socio-cultural factors with tobacco-use at home adjusted by other demographic characteristics. Thematic content analysis was done on the qualitative data, and then inferences were drawn out collectively.

Results

This study revealed that the prevalence of tobacco-use in the home was 25.7% in urban residential areas in Bangladesh. Multivariate logistic regression analysis identified that familial and socio-cultural factors were significantly associated with tobacco-use at home: marital status (OR 3.23, 95% CI: 1.37-6.61), education (OR 2.14, 95% CI: 1.15-3.99), smoking habits of older family members (OR 1.81 95% CI: 0.91-2.89), tobacco being offered as hospitality and for entertainment (OR 1.85, 95% CI: .94-2.95) and lack of religiosity practice (OR 2.39, 95% CI: 1.27-4.54). Qualitative findings indicated that social customs, lack of religious practice, tobacco-use of older family members, and lack of family guidance were key obstacles for enabling tobacco-free homes in urban areas.

Conclusion

Use of tobacco at home is continuing as part of established familial and socio-cultural traditions. If tobacco-use at home is not addressed seriously by the authorities then the emerging threat of second-hand smoke exposure and harmful consequences of tobacco-use will be exacerbated.

Research Paper-05

3.5. Type 2 diabetes mellitus: a risk indicator for colorectal cancer

Journal: Published in *International Journal of Community Medicine and Public Health* 2020

ABSTRACT

Background: Worldwide, colorectal cancer is the fourth most common cancer and affects both men and women equally. Increasing evidence suggests that abnormal glucose metabolism may be associated with increased risk of colorectal cancer. The aim of this case control study was to determine the association of colorectal cancer with type 2 diabetes mellitus (T2 DM) and other risk factors of colorectal cancer among adult Bangladeshi population.

Methods: We included patients of colorectal cancer as cases and the controls were mostly cancer patients other than colorectal cancer and relatives of the patients attending in National Institute of Cancer Research Hospital (NICRH) in Dhaka. Three hundred samples (100 cases and 200 controls) were selected purposively.

Results: It was found that in cases 19% participants had T2 DM before colorectal cancer whereas 10.5% participants in controls had similar history. Appropriate statistical analysis reported that cases having T2 DM has 2.86 times higher chance to develop colorectal cancer (OR 2.68, 95% CI: 1.21-5.96) compared to controls. We also got significant inverse association with colorectal cancer with obesity (OR 0.43, 95% CI: 0.19-0.97), positive smoking history (OR 0.32, 95% CI: 0.19-0.60) and low fruits and vegetable intake (OR 0.33, 95% CI: 0.19-0.60).

Conclusions: This was a unique study for Bangladesh which showed results consistent with the finding of studies done globally. Therefore, we accept our research hypothesis as T2 DM is a risk indicator for colorectal cancer, however obesity, smoking and less fruits and vegetable intake are also risk factors for colorectal cancer among Bangladeshi population.

Research Paper-06

3.6. "Determinants of stunting during the first 1000 days of life in Bangladesh: A Review"

Journal: Published in *Journal of Food Science & Nutrition 2020*

Abstract

Stunting is a major problem in Bangladesh, with a prevalence of 31% in 2017. The prevalence of stunting in children aged under two has reduced by only 6% since 2004. After children reach 2 years of age, the consequences of stunting become almost irreversible. This paper seeks to examine and analyze the determinants associated with stunting during the first 1,000 days of life in Bangladesh to assist in developing evidence-based interventions in Bangladesh. A literature review was conducted comprehensively on all relevant peer-reviewed and gray literature of studies conducted in Bangladesh. The existing literature was searched and examined using the World Health Organization (WHO) conceptual framework for stunting. Evidence indicates that low maternal weight, lack of maternal education, severe food insecurity, lack of access to suitable nutrition, nonexclusive breastfeeding, pathogen-specific diarrhea, and low weight and height at birth are associated with early childhood stunting in Bangladesh. The relation of the quality of drinking water with stunting is not clear in Bangladesh. Literature about the association between stunting and determinants such as the political economy, education systems, and agriculture and food systems is not found. This synthesis shows that the factors of stunting are multifaceted. As such, a multi-sectoral approach is essential in Bangladesh, employing evidence-based interventions to address the determinants that contribute to the risk of stunting to achieve the global nutrition target by 2025.

Research Paper-07

3.7. Depression and Associated Factors among International Students in a Private University of Bangladesh

Journal: Published in *Global psychiatry 2020*

Abstract

Background: Depression is the second major cause of disability and is a principal source of disease burden worldwide which is quite common among international students.

Aim: This study explored the depression and its associated factors among international students of a private university in Bangladesh.

Methods: This cross-sectional study was conducted among 149 international students at a private university in Dhaka, Bangladesh using the Center for Epidemiologic Studies Depression (CES-D 10) Scale.

Results: The prevalence of depressive symptoms among international students was 47.7%. Students' age, marital status, satisfaction with living conditions and problems concerning studies, food, homesickness, finances, accommodation, and health were significantly associated with depression.

Conclusion: This study concluded that there is an unmet need for psychological support for international students studying in Bangladesh. Appropriate support services should be directed to them to help and to overcome the challenges they face.

Research Paper-08

3.8. Prevailing familial, social and cultural obstacles in keeping tobacco-free homes in urban areas of Bangladesh: A mixed-method study

Journal: Published in *PLoS ONE* 2019

Abstract

Background

Millions of children and others across the world are being dangerously exposed to tobacco smoke and toxins in their own homes. Whilst there is limited interest in laws and interventions controlling tobacco use in public places in Bangladesh, no attention has been given to preventing tobacco-use inside homes. This study explores the familial and socio-cultural factors that provide obstacles for ensuring tobacco-free homes in Bangladesh.

Materials and methods

A mixed-method design was adopted and from among the 1,436 tobacco users identified in a population of 11,853, 400 (tobacco users) were selected for cross-sectional survey. This survey involved a probability proportional sampling procedure, and 24 In-Depth Interviews. Multivariate logistic regression was performed to explore the association of familial and socio-cultural factors with tobacco-use at home adjusted by other demographic characteristics. Thematic content analysis was done on the qualitative data, and then inferences were drawn out collectively.

Results

This study revealed that the prevalence of tobacco-use in the home was 25.7% in urban residential areas in Bangladesh. Multivariate logistic regression analysis identified that familial and socio-cultural factors were significantly associated with tobacco-use at home: marital status (OR 3.23, 95% CI: 1.37–6.61), education (OR 2.14, 95% CI: 1.15–3.99), smoking habits of older family members (OR 1.81 95% CI: 0.91–2.89), tobacco being offered as hospitality and for entertainment (OR 1.85, 95% CI: .94–2.95) and lack of religiosity practice (OR 2.39, 95% CI: 1.27–4.54). Qualitative findings indicated that social customs, lack of religious practice, tobacco-use of older family members, and lack of family guidance were key obstacles for enabling tobacco-free homes in urban areas.

Conclusion

Use of tobacco at home is continuing as part of established familial and socio-cultural traditions. If tobacco-use at home is not addressed seriously by the authorities then the emerging threat of second-hand smoke exposure and harmful consequences of tobacco-use will be exacerbated.

Research Paper-09

3.9. Soft Drink Consumption and its Influence on BMI and Academic Performance among Selected School Children in Dhaka City of Bangladesh

Journal: Published in *Current Research in Nutrition and Food Science* 2019

Abstract

Soft drink refers to sugar-sweetened beverages that contain a natural or artificial flavoring. Daily soft drinks consumption in children is an unhealthy lifestyle behavior that demands special attention to maintain their healthy lives. The present study was aimed to examine the consumption of soft drink and its influence on BMI, and academic performance among selected school children in Dhaka City of Bangladesh. This cross-sectional study was nested among 600 randomly selected young school-aged children (6-17 years, both boys and girls) from the six English Medium schools in Dhaka city of Bangladesh. A face-to-face interviews were conducted to collect the data using a semi-structured interviewer-administered questionnaire. Descriptive and bivariate analyses were done using SPSS 20.0. Results showed that about 48% of the school children consumed soft drinks regularly. Raised weight and Body Mass Index (BMI) was higher among regular soft drink consumers compared to their counterparts ($p < 0.01$) and advertisement ($p < 0.01$) were established to be significant determinants for soft drink consumption among the young school students. Study findings showed that academic performance was better among nonconsumers of soft drinks ($p < 0.001$). The overall consumption of soft drinks is alarming among school children and its influence on increasing BMI and decreasing academic performance. The high consumption of soft drinks deserve due attention to avoid the development of non-communicable diseases. Therefore, well-coordinated health education programs are recommended to minimize the consumption of soft drinks among school children.

Research Paper-10

3.10. Gestational diabetes among the arsenic exposed women from arsenic contaminated area of Bangladesh

Journal: Published in *Malaysian Journal of Public Health Medicine 2018*

ABSTRACT

Exposure to groundwater arsenic contamination has been demonstrated to be associated with an increased risk of diabetes mellitus in Bangladesh. But, the association between arsenic exposure and Gestational Diabetes Mellitus (GDM) in Bangladesh remains to be reported. This cross-sectional study was carried out to assess the occurrence of GDM amongst pregnant women from the arsenic contaminated area. A total of 200 pregnant women who were aged 20 years and more, having gestational age more than 21 weeks, and had attended a district hospital for antenatal checkup were selected for the study. Of the total 200 participants, 15.5% were found to have GDM and it was significantly high ($p=0.029$) in women with higher gestational age. Regarding arsenic exposure, 39.5% of the participants were categorized as arsenic exposed and amongst them the proportion of GDM was found high (20.3%). Binary logistic regression analysis showed that the increase in gestational age and BMI, and a higher level of arsenic in urine of the total participants, had significantly.

Research Paper-11

3.11. Traditional healing practices in rural Bangladesh: a qualitative investigation

Journal: Published in *BMC Complementary & Alternative Medicine* 2018

Abstract

Background: Traditional healing practice is an important and integral part of healthcare systems in almost all countries of the world. Very few studies have addressed the holistic scenario of traditional healing practices in Bangladesh, although these serve around 80% of the ailing people. This study explored distinctive forms of traditional healing practices in rural Bangladesh.

Methods: During July to October 2007, the study team conducted 64 unstructured interviews, and 18 key informant interviews with traditional healers and patients from Bhabanipur and Jobra, two adjacent villages in Chittagong district, Bangladesh. The study also used participatory observations of traditional healing activities in the treatment centers.

Results: Majority of the community members, especially people of low socioeconomic status, first approached the traditional healers with their medical problems. Only after failure of such treatment did they move to qualified physicians for modern treatment. Interestingly, if this failed, they returned to the traditional healers. This study identified both religious and non-religious healing practices. The key religious healing practices reportedly included Kalami, Bhandai, and Spiritual Healing, whereas the non-religious healing practices included Sorcery, Kabiraji, and Home Medicine. Both patients and healers practiced self-medication at home with their indigenous knowledge. Kabiraji was widely practiced based on informal use of local medicinal plants in rural areas. Healers in both Kalami and Bhandari practices resorted to religious rituals, and usually used verses of holy books in healing, which required a firm belief of patients for the treatment to be effective. Sorcerers deliberately used their so-called supernatural power not only to treat a patient but also to cause harm to mothers upon secret request. The spiritual healing reportedly diagnosed and cured the health problems through communication with sacred spirits. Although the fee for diagnosis was small, spiritual healing required different types of treatment instruments, which made the treatment implicitly expensive.

Conclusions: Traditional healing was widely practiced as the means of primary healthcare in rural areas of Bangladesh, especially among the people with low socioeconomic status. The extent of services showed no decline with the advancement of modern medical sciences; rather it has increased with the passage of time.

Research Paper-12

3.12. Status of Knowledge on the Risk Factors of Low Birth Weight among the Women of Reproductive Age in Rural Bangladesh

Journal: Published in *Epidemiology: Open Access 2017*

Abstract

Background: Low birth weight (LBW) is one of the major public health problems in developing countries, like Bangladesh. Maternal knowledge is directly involved with the status of birth of her baby. Very little is known about the knowledge on the risk factors of LBW babies in rural life context of Bangladesh.

Methods: A cross sectional study was conducted among the selected reproductive age women of the village Vagna and Shubadda in Kearanigonj sub-district under Dhaka District with a view to assess the level of knowledge about risk factors of low birth weight. A total of 300 reproductive aged women were interviewed purposively using semi-structured questionnaire.

Results: The study reported around two-third (64.0%) of the respondents had mentioned that they had perceived knowledge about the low birth weight. Among all the maternal risk factors, anemia was identified by two-fifth of participants (40.0%) followed by malnutrition (18.6%). The study documented only a little less than one fifth of the respondents had knowledge that lack of antenatal care in pregnancy can cause of LBW newborn. Bivariate analysis found statistically significant association between knowledge on low birth weight and respondent's age ($P=0.001$), education ($p=0.001$), occupation ($p<0.001$) and their guardian's education ($P=0.001$) and occupation ($P<0.05$).

However, education is the most important determinant to have the knowledge about the risk factors and prevention measure of LBW.

Conclusion: The study findings observed that women lack the knowledge on risk factors of low birth weight in terms of mothers' risk factors, complication and prevention of low birth weight. The study focused more attention to some affecting factors of the low birth weight with the mother's education, occupation, health status and antenatal care service. The LBW scenario may be reduced in expected rate if health policy makers consider the urgent intervention raising the awareness about the risk factors of LBW, and also providing much reproductive education to the problem of low birth weight.

Research Paper-13

3.13. Nutritional Status of Children Living in an Orphanage in Dhaka city, Bangladesh

Journal: Published in *Malaysian Journal of Nutrition 2017*

Background: Children living in orphanages tend to be neglected and may be malnourished. This study assessed the socio-economic background and nutritional status of children living in an orphanage in Dhaka city, Bangladesh.

Methods: A cross-sectional study was conducted among the children in Sir Salimullah Muslim Orphanage, Dhaka from January to November 2014. Systematic sampling was adopted to collect data from 232 children using a semi-structured questionnaire. Anthropometric measurements of the children were taken and the WHO reference growth chart was used to determine the children's nutritional status. Weight-for-age was categorised by mild, moderate and severe malnutrition. The Pearson Chi-square test was performed to determine the association between the extent of malnutrition and socio-demographic characteristics of the children.

Results: The majority of the children (60.3%) in the orphanage were malnourished, with mild, moderate and severe malnourished being 43.1%, 16.8% and 0.4%, respectively. Malnutrition was higher among the boys than girls in the age group of 15-18 years. The orphans suffered significantly ($P < 0.05$) from malnutrition compared to those, who had at least one parent alive.

Conclusion: Malnutrition is highly prevalent among children and adolescents under residential care and needs to be addressed. In particular, early identification and intervention can improve the quality of nutritional status of the urban orphanage population. An investigation with a large sample is highly desirable to explore the severity of the problem in the national context.

Research Paper-14

**3.14. Impact of improved cooking stove on maternal health in rural Bangladesh:
A quasi-experimental study**

Journal: Published in *Journal of Medical Research and Innovation 2017*

Abstract

Introduction: Two-thirds of all households in developing countries depend on unprocessed biomass fuel for cooking. Traditional stoves have poor combustion capacity which produces heavy smoke and numerous harmful pollutants. Switching to Improved Cooking Stove (ICS), a well-designed earthen made stove equipped with a chimney could be beneficial for health. The aim of this study was to assess the efficacy of ICS on maternal health in rural areas of Bangladesh. **Methods:** A quasi-experimental design was adopted to conduct the study. This study selected 150 Households from 5 villages (intervention) and 150 Households from two villages (control) from the Manikonj district of Bangladesh during January 1, 2012 to July 30, 2012. Differences between control and intervention group were examined by applying t-test or one-way analysis of variance (ANOVA). The conventional cut-off value of 0.05 was taken as statistical significance. Stata (version 13) was used to do the analysis. **Results:** Most of the respondents (62%) were less than 30 years of age. About 94% participants resided in tinshaded houses, and 51% kitchens were small. After the intervention period, the measured mean concentrations of Particulate Matter (PM_{2.5}) for the intervention and control group was 259 µg/m³ and 1285 µg/m³, respectively (p<0.05). **Conclusion:** ICS reduced the incidence of respiratory illness among the intervention group, however, did not demonstrate significant changes in LFT during the six months of the follow-up period. Therefore, this study found ICS might have the potential to be used to improve the maternal health in rural Bangladesh. However, more longitudinal investigations are expected to demonstrate the efficacy and impact of ICS on maternal health to support the statement.

Research Paper-15

3.15. An Evaluation of Treatment Outcome in Tuberculosis Directly Observed Treatment Short Course Facilities in Jigawa State, Nigeria (2010–2014)

Journal: Published in *The Journal of Health and Translational Medicine* 2017

ABSTRACT

Tuberculosis (TB) is a major public health problem worldwide. It is estimated that 2 billion people, a third of the world population, have TB infection, but are not down with the disease. Globally, incident cases of TB showed a rising trend, with a 6.6 million reported in 1990, 8.3 million in 2000, 9.24 million in 2004, and an estimated 9.27 million incident cases in 2007.

The aim of this study was to evaluate the treatment outcome of TB patients in Nigeria in the state of Jigawa. A cross sectional retrospective study was conducted to evaluate the treatment outcome in directly observed treatment with a short course for tuberculosis (TB DOTS) in facilities in the state between the years 2010 to 2014. The study population were all the patients with TB, who had access to DOTS therapy. Data were collected from the various local governmental areas for tuberculosis control (LGA TB) register. The LGA TB control registers contained basic information of the patients, and a statistical software SPSS-V22.0 was used to analyse the data. A total of 963 TB patients were studied. More than half (57.4%) of the patients were male, and nearly three- fourths (71.2%) of the patients accessed care from urban local government areas in the state. The greater majority (96.3%) of the cases had pulmonary tuberculosis (PTB). Among the patients, more than two-fifths (45%) were cured, and a little over one-fifth (20.6%) of them were HIV positive. This study revealed that the treatment success rate (TSR) in the Jigawa State of Nigeria was higher than the overall TSR of Nigeria, and the defaulter rate in this state was lower than the Nigerian average.

Research Paper-16

3.16. Antenatal and postnatal care practices among mothers in rural Bangladesh: A community based cross-sectional study

Journal: Published in *Midwifery* 2017

Abstract

Background: Appropriate utilization of antenatal and postnatal care can prevent complications and ensures better maternal and child health care. Although under-five mortality in South Asia, including Bangladesh, has reduced substantially, the rate of neonatal mortality is still high. The study aims to identify factors associated with the practice of antenatal and/or postnatal care amongst mothers of newborns from a healthcare facility in a selected area of rural Bangladesh.

Research design/Setting: A community-based cross-sectional study was conducted among 360 postnatal mothers, who were within 42 days of delivery. The study was conducted at Madhupur Upazila (sub-district) in Tangail district of Bangladesh from January 2012 to June 2012. A structured questionnaire was used to collect relevant information from the study subjects.

Finding: Only one in seven (14.2%) of the mothers visited health care facility for 4 or more times to receive antenatal care. A higher proportion of mothers delivered at home, thirty-five percent of the respondents experienced post-delivery complications. About 18% of mothers received postnatal care from the health care facility. Several variables revealed significant associations in bivariate analyses; few variables remained significant for antenatal care and post-natal care categories in the multinomial logistic regression analysis. The likelihood of receiving either antenatal care or post-natal care (OR =0.30, 95% CI =0.10–0.96) was significantly lower among mothers who had either no education or less education (1–5 years of schooling); and was found significantly higher for women who watched TV (OR = 2.79; 95% CI = 1.45–5.37); family income showed significant association for receiving both antenatal care and postnatal care services as well.

Conclusion: Mother's education appears to have a strong and significant association with antenatal care and postnatal care practices in rural Bangladesh. Community based intervention and regular home visits by health care providers could enhance care for women and newborns including delivery of specific health messages. Counseling could be integrated during antenatal care visits to increase the postnatal care service further.

4. Research Papers: Preparing to submit as an original research article

17) Quality Of Life Among The Elderly People Living In A Selected Urban Slum Of Bangladesh

18) Proposed 'Sports for UHC Model' As Innovative Financing Option for Moving Towards Universal Health Coverage: Case Study of Bangladesh

19) Ground Scenario of Community Clinic in Bangladesh: A Case Study of Two Selected Villages of Raninagar Upazila

20) The Perception and Attitude Towards Health Insurance Among the Students of Dhaka University

21) Overcoming the Sexual and Reproductive Health related misuse of Digital Media in Bangladesh: Some Potential Pathways

22) Compliance of Tobacco Control Law (TCL) in the public transports in Bangladesh: A nationwide study

23) Knowledge, Attitude, and Practice (KAP) regarding Tobacco Control Law in Public Transports among the Public Transport Users.

5. Concluding Remarks

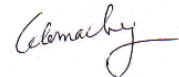
Undoubtedly, this is widely accepted as well as recognized that research is the soul of academic realm because it contributes to knowledge development, practical improvement, and policy development what triggers out the viable and doable options in achieving sustainable and inclusive development agenda, particularly, the SDG-3.

Annex-I

Members of the Research Development Committee & their Signature:

1. Head of the Department (Convener)

Dr. ABM Alauddin Chowdhury, Associate Professor & -----
Head Department of Public Health



2. Member (must be a teacher)

3. Dr. Salamat Khanker, Associate Professor & -----
Department of Public Health



Research Coordinator (Member Secretary)

Md. Imdadul Haque, Sr. Lecturer & Research Coordinator, -----
Department of Public Health

