MH Samorita Medical College Journal

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(MH Samorita Med Coll J)

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Manuscript Preparation and Submission

Guide to Authors

MH Samorita Medical College Journal provides rapid publication (twice in a year) of articles in all areas of different subjects. The Journal welcomes the submission of manuscripts that meet the general criteria of significance and scientific excellence.

The manuscripts should be submitted addressing Editor-in-Chief.

The Journal of MH Samorita Medical College only accepts manuscripts submitted as triplicate hard copy with a soft copy.

Papers must be submitted with the understanding that they have not been published elsewhere (except in the form of an abstract or as part of a published lecture, review, or thesis) and are not currently under consideration by another journal (**International or National)** or any other publisher.

The submitting (Corresponding) author is responsible for ensuring that the submitting article has been signed by all the co-authors. It is also the authors' responsibility to ensure that the articles emanating from a particular institution are submitted with the approval of the necessary institutional requirement. Only an acknowledgment from the editorial board officially establishes the date of receipt. Further correspondence and proofs are sent to the corresponding author(s) before publication unless otherwise indicated. It is a condition for submission of a paper that the authors permit editing of the paper for readability. All enquiries concerning the publication of papers should be addressed to Editor-in-Chief (MH Samorita Med Coll J)

The cover letter

Cover letter is expected to be submitted along with manuscript. Use the cover letter to explain why the paper should be published in the Journal of MH Samorita Medical College. The cover letter should include the corresponding author's full address, telephone/ fax numbers and e-mail address.

Ethical aspects

- Ethical aspect of the study is considered very carefully at the time of assessment of the manuscript.
- Any manuscript that includes table, illustration or photograph that have been published earlier should accompany a letter of permission for re-publication from the author(s) of the publication and editor/ publisher of the Journal where it was published earlier.
- Permission of the patients and/or their families to reproduce photographs of the patients where identity is not disguised should be sent with the manuscript. Otherwise the identity would be blackened out.

Conditions for submission of manuscript

- All manuscripts are subject to peer-review.
- Manuscripts are received with the explicit understanding that they are not under simultaneous consideration by any other publication.
- Submission of a manuscript for publication implies the transfer of the copyright from the author to the publisher upon acceptance. Accepted manuscripts become the permanent property of the MH Samorita Medical College Journal (MHSMCJ) and may not be reproduced by any means in whole or in part without the written consent of the publisher.
- It is the author's responsibility to obtain permission to reproduce illustrations, tables etc. from other publications.

Article Types

Four types of manuscripts may be submitted.

Editorials: It should preferably cover a single topic of common interest.

Original Articles: These should describe new and carefully confirmed findings, and experimental procedures should be given in sufficient detail for others to verify the work and its volume should **not exceed 5000 words** or equivalent space including title, summary/abstract, main body, references, table(s) and figure(s).

Review Articles: Submissions of reviews covering topics of current interest are welcome and encouraged. Reviews should be concise and no longer than 4 to 6 printed pages (about 12 to 18 manuscript pages) and should **not exceed 5000 words**. It should be focused and must be up to date.

Case Reports: This should cover uncommon and/or interesting cases and should **not exceed 1000** words or equivalent space.

Review Process

All manuscripts are initially screened by editor and sent to selective reviewers. Reviewers are requested to return comments to editor within 3 weeks. On the basis of reviewers' comments the editorial board decides whether the articles are accepted or send for re-review the manuscripts. The MH Samorita Med Coll J editorial board tries to publish the manuscript as early as possible fulfilling all the rigorous standard journal needs.

I. Preparing a Manuscript for Submission to MH Samorita Med Coll J

Editors and reviewers spend many hours reading and working on manuscripts, and therefore appreciate receiving manuscripts that are easy to read and edit. The following information provides guidance in preparing manuscripts for the journal.

I A. Preparation of manuscript

Criteria: Information provided in the manuscript are important and likely to be of interest to an international readership.

Preparation

1. Manuscript should be written in English and typed on one side of A4 (290 x 210cm) size white paper.
2. Margin should be 5 cm for the header and 2.5 cm for the remainder.
3. Style should be that of modified Vancouver.
4. Each of the following section should begin on separate page :
- Title page
- Abstract
- Main body/Text: Introduction, Materials and Methods, Results, Discussion and conclusion (For an original article/ Systematic review)
- Acknowledgement
- References
- Tables and legends

Pages should be numbered consecutively at the upper right hand corner of each page beginning with the title page.

I A. 1. General Principles

- The text of observational and experimental articles is usually (but not necessarily) divided into the following sections: Introduction, Materials and Methods, Results, and Discussion(so-called "IMRAD" structure is a direct reflection of the process of scientific discovery.
- Long articles may need subheadings within some sections (especially Results and Discussion) to clarify their content. Other types of articles, such as case reports, reviews, and editorials, probably need to be formatted differently.
- Authors need to work closely with editors in developing or using the publication formats and should submit supplementary electronic material for peer review.
- Double-spacing all portions of the manuscript— including the title page, abstract, text, acknowledg- ments, references, individual tables, and legends— and generous margins make it possible for editors and reviewers to edit the text line by line and add comments and queries directly on the paper copy.
- If manuscripts are submitted electronically, the files should be double-spaced to facilitate printing for reviewing and editing.
- Authors should number on right upper all of the pages of the manuscript consecutively, beginning with the title page, to facilitate the editorial process.

I A. 2. Title Page

The title page should have the following information:
- The title should be brief, relevant and self explanatory. It should reflect the content of the article and should include all information that will make electronic retrieval of the article easy. Subtitles should not be used unless they are essential.
- Title should not be phrased as questions.
- The names of the authors should appear below the title that should include full names of all authors **(no initial).**

Example: Md MA Hamid **(correct form);** Hamid MA **(incorrect).**

The affiliations and full addresses of all authors should be mentioned in the title page.

- Contact information for corresponding authors: The name, mailing address, telephone and fax numbers, and e-mail address of the author responsible for correspondence about the manuscript.
- The name and address of the author to whom requests for reprints should be addressed or a Statement that reprints are not available from the authors.
- Source(s) of support in the form of grants, equipment, drugs, or all of these.

I A. 3. Abstract

Original Article: Structured abstracts are essential for original research. Structured abstract includes introduction, objective(s), materials and methods, results and conclusion. Should be limited to 250 words. The abstract should provide the introduction of the study and blinded state and should mention the study's purpose, basic procedures including selection of study subjects or laboratory animals, main findings (giving specific effect sizes and their statistical significance, if possible) and the principal conclusion. Because abstracts are the only substantive portion of the article indexed in many electronic databases, and the only portion that many readers read, it should accurately reflect the content of the article; so, authors need to be careful about that.

Review Article: is expected to contain background, objective(s), main information and conclusion in brief form. Without any subheading the content should be described in a single paragraph.

Case Study: needs to have background, case summary and conclusion. The content should be described in a single paragraph.

Do not put references in the abstract.

I A. 4. Main body

I A. 4 a) Original article

The body of the text should be divided into the following sections: i) Introduction, ii) Materials and methods, iii) Results, iii) Discussion and iv) Conclusion.

i) Introduction

Should not exceed **500 words**. This section includes background of the problem (that is, the nature of the problem and its significance). It should be very specific, identify the specific knowledge in the aspect, reasoning and what the study aim to answer. Only pertinent primary references should be provided and no data or conclusions should be included from the work to be reported. **Justification** of the study and its **objective(s)** should be mentioned at the end of this section. All information given in this section must have references that to be listed in the reference section.

ii) Materials and methods

The Methods section should be written in such way that another researcher can replicate the study. The type of study (study design), study period, sampling technique, sample size, study population, data collection technique and tool as well as data handling, processing and data analysis should be briefly mentioned in this section.

ii a) Selection and Description of Participants

Describe selection of the observational or experimental participants (patients or laboratory animals, including controls) clearly, including eligibility (inclusion) and exclusion criteria and a description of the source population. Because the relevance of such variables as age and sex to the object of research is not always clear, authors should explain their use when they are included in a study report—for example, authors should explain why only participants of certain ages were included or why women were excluded etc. The guiding principle should be clarity about how and why a study was done in a particular way. When authors use such variables as race or ethnicity, they should define how they measured these variables and justify their relevance.

ii b) Technical Information

- Describe methods, apparatus (give the manufacturer's name and address in parentheses), and procedures in sufficient detail to allow others to reproduce the results.
- Cite references to established methods, including statistical methods. Provide references and brief descriptions for methods that have been published but are not well-known.

- Describe new or substantially modified methods, give the reasons for using them, and evaluate their limitations.
- Identify precisely all drugs and chemicals used, including generic name(s), dose(s), and route(s) of administration.
- For a systematic review article include a section describing the methods used for locating, selecting, extracting, and synthesizing data. These methods should also be summarized in the abstract.

ii c) Statistics

- Describe statistical methods with enough detail to enable a know- ledgeable reader with access to the original data to verify the reported results. When possible, quantify findings and present them with appropriate indicators of measurement error or uncertainty (such as confidence intervals).
- Cite references for the design of the study and statistical methods (standard for the work) when possible.
- Define statistical terms, abbreviations, and most symbols.
- Specify the computer software used.

iii) Results

Results should be described in past tense.

- Present results in logical sequence in the text, tables, figures and illustrations, giving the main or most important findings first. Maintain the sequence of results with the specific objectives selected earlier.
- Do not repeat all the data in the tables or illustrations in the text; emphasize or summarize only the most important observations.
- When data are summarized in the result section, give numeric results not only as derivatives (for example, percentages) but also as the absolute numbers from which the derivatives were calculated, and specify the statistical methods used to analyze them.
- Restrict tables and figures to those needed to explain the argument (relevant to objectives) and to assess supporting data. Use graphs as an alternative to tables with many entries; do not

duplicate data in figures (graphs/ charts) and tables. **Example:** Age range of the studied respondents should be appeared **either in table or in figure**.

- Avoid nontechnical uses of technical terms in statistics, such as "random" (which implies a randomizing device), "normal," "significant," "correlations," and "sample."

iv) Discussion

The discussion must be described in **past tense.** This section should reflect the author's comments on the results.

- Emphasize the new and important aspects of the study and the conclusions that follow them in the context of the totality of the best available evidence.
- Do not repeat in detail data or other information given in the Introduction or the Results section.
- For experimental studies, it is useful to begin the discussion by briefly summarizing the main findings, then explore possible mechanisms or explanations for those findings.
- Compare and contrast the results with other relevant studies and potential argument for discrepancy and consistency should be given here.
- State the limitations of the study, and explore the implications of the findings for future research and for clinical practice.
- Link the conclusions with the goals of the study but avoid unqualified statements, not adequately supported by the data.
- In particular, avoid making statements on economic benefits and costs unless the manuscript includes the appropriate economic data and analyses.

v) Conclusion

It should be described in **present tense**. Conclusion should be the main message and the authors' impression from the results of the study. The article should be concluded briefly (**not more than 100 words**). Recommendation(s) can also be included in this section which should not exceed 30 words.

I A. 4 b) Review article

For a systematic review or meta-analysis the body of text should be divided into the following sections (Like an original article): i) Introduction, ii). Materials and methods, iii) Findings/Results, iii a) Main information about the topic, iv) Discussion and v) Conclusion. For a general review article section No. ii (Materials and methods) and iii (Findings/Results) iv) (Discussion) are not relevant. So, for a general review article section No. i). Introduction, iii a). Main Information about the Topic and v). Conclusion are required.

i) **Introduction**: should not exceed **500 words**. This section will include background of the topic. At the end of the review, why the author want to publish the topic on the article ie., the objective should be mentioned.

ii) **Material and methods**: How the review was done, what sorts of articles were searched, how they were searched, the total number of articles reviewed should be mentioned here. This section is not required for a general review article.

iii) **Results/findings**: The findings on the topic after reviewing the articles should be compiled, analysed and described here like an original research article. This section is not required for a general review article.

iii a) **Main Information about the Topic**: The main information about the topic should be described and discussed elaborately with the help of published literatures in this section but the subtitles should be relevant to the topic(Title) for a general review article. This section may not be required for a systematic review or meta-analysis.

iv) **Conclusion:** The article should be concluded briefly (**not more than 100 words**).

I A. 4 c) Case Report

The body of the text should be divided into the following sections: i) Introduction, ii) Case Report (Description of the case), iii) Discussion and iv) Conclusion.

i) **Introduction**: A brief description should be given on the topic of the case with the help of published literatures.

ii) **Case Report**

- The findings (history, clinical examination and investigations) should be described here.

- Management (if any) can also be given.

iii) Discussion

- The discussion should be started by briefly summarizing the main findings of the case reported, then possible explanations for those findings should be explored.

- The findings of the case should be compared with other relevant studies and potential argument for discrepancy and consistency should be given here.

iv) Conclusion

- The article should be concluded briefly (**not more than 100 words**).

- The main findings of the reported case should be emphasized which the readers can consider as a clue to suspect a diagnosis for a rare case in future.

I A. 5. Acknowledgement

Acknowledge advisor(s) and/or any one who helped the researcher(s)

- Technically

- Intellectually

- Financially

I A. 6. References

I A. 6 a) General Considerations related to References

- Although references to review articles can be an efficient way to guide readers to a body of literature, review articles do not always reflect original work accurately. Readers should therefore be provided with direct references to original research sources whenever possible.

- Abstracts should not be used as references. References to papers accepted but not yet published should be designated as "in press" or "forthcoming"; authors should obtain written permission to cite such papers as well as verification that they have been accepted for publication.

- Information from manuscripts submitted but not accepted should be cited in the text as "unpublished observations" with written permission from the source.

- Citing a "personal communication" should be avoided unless it provides essential information not available from a public source, in which case the name of the person and date of

communication should be cited in parentheses in the text. For scientific articles, obtain written permission and confirmation of accuracy from the source of a personal communication. Some but not all journals check the accuracy of all reference citations; thus, citation errors sometimes appear in the published version of articles. To minimize such errors, references should be verified using either an electronic bibliographic source, such as PubMed or print copies from original sources.

- Authors are responsible for checking that none of the references cite retracted articles except in the context of referring to the retraction. For articles published in journals indexed in MEDLINE, the ICMJE considers PubMed the authoritative source for information about retractions.

I A. 6 b) Reference Style and Format

➢ **Reference Style**

Author should follow **Vancouver style**.

- R**eference list** should appear at the end of the article and should be numbered consecutively in the order as they are cited in the text, which is done by **superscript** (single press of 'ctrl shift +') in numerical form **(citation number).**

- When **multiple references** are cited at a given place in the text, use a **hyphen** to join the first and last numbers that are **inclusive**. Use **commas** (without spaces) to separate **non-inclusive** numbers in a multiple citation.

  Example: 2,3,4,5,7,10,12 are abbreviated to **(2-5,7,10,12)**.

- **Do not** use a hyphen if there is no citation numbers in between 2 numbers that support your statement.

  Example: 1-2 **(in correct form).** 1,2**(correct form)**

- As a general rule, citation numbers in the text should be placed **outside full stops and commas**, inside colons and semicolons (applicable for any part of the document).

  Example: Masud Alam,[1] Selim Khan[2]

  Example: Over the past decades public health relevance of mental health condition 'in children and adolescents has been of growing concern'.[1-3,5,6]

- Identify references in text, tables, and legends by Arabic numerals in superscript.

- References cited only in tables or figure legends should be numbered in accordance with the sequence established by the first identification in the text of the particular table or figure.

➢ **Reference Format**

1. Citing a Book

The essential details required are (in order):

1.1 Name/s of author/s, editor/s, compiler/s or the institution responsible.

- Where there are **6 or less authors** you must list **all authors**.

- Where there are **7 or more author**s, only the **first 6 are listed** and **add "et al"** (after a **comma**).

- Put a comma and 1 space between each name. The last author must have a full-stop after their initial(s).

  Format: surname (**1 space**) initial/s (**no spaces or punctuation between initials**) (**full-stop OR if further names comma, 1 space**)

  Example: Smith AK, Jones BC, Bloggs TC, Ashe PT, Fauci AS, Wilson JD, et al.

- **When author/s is/are editor/s :**Follow the same methods used with authors but use the word **"editor"** or **"editors"** in full after the name/s. The word editor or editors must be in small letter. (**Do NOT** confuse with "ed."used for edition.)

  Example: Millares M, editor. Applied drug information: strategies for information management. Vancouver (WA): Applied Therapeutics Inc; 1998.

Sponsored by institution, corporation or other organization (including PAMPHLET)

E**xample**: Australian Pharmaceutical Advisory Council. Integrated best practice model for medication management in residential aged care facilities. Canberra: Australian Government Publishing Service; 1997.

1.2. Title of publication and subtitle if any

- Italics or underlining should be avoided.

- Only the first word of the titles (and words that normally begin with a capital letter) should be started with capital letter (except proper noun).

Format: title (**full-stop, 1 space**)

Example: Harrison's principles of internal medicine.

Example: Physical pharmacy: physical chemical principles in the pharmaceutical sciences.

Example: Pharmacy in Australia: the national experience.

1.3. Edition (other than the first)
Number of edition **other than first one** should be mentioned as **2nd, 3rd,10th ed.**

Example: Blenkinsopp A, Paxton P. Symptoms in the pharmacy: a guide to the management of common illness. 3rd ed. Oxford: Blackwell Science; 1998.

1.4. Place of publication (if there is more than one place listed, use the first one)
- The place name should be written in full.
- If the place **name is not well known**, add a comma, 1 space and the state or the country for clarification. For places in the USA, add after the place names the 2 letter postal code for the state. This must be in upper case. eg. Hartford (CN): (where CN=Connecticut).

Format: place of publication (**colon, 1 space**)

Example: Hartford (CN):

Example: Texas (NSW):

Example: Kyoto (Japan):

1.5. Publisher
The publisher's name should be spelled out in full.

Format: publisher (**semi-colon, 1 space**)

Example: Australian Government Publishing Service;

Example: Raven Press;

Example: Williams & Wilkins;

1.6. Year of publication

Format: year (full-stop, add 1 space if page numbers follow).

Example: 1999.

Example: 2000. p. 12-5.

1.7. Page numbers (if applicable).
- Abbreviate the word "page" to "p.".

Note: do not repeat digits unnecessarily

Format: p (**full-stop, 1 space**) page numbers (**full-stop**).

Example: p. 122-9 (**correct**); p. 122-129 (**incorrect**).

Example: p. 1129-57 (**correct**); p. 1129-157 (**incorrect**).

Example of citing a book: Lodish H, Baltimore D, Berk A, Zipursky SL, Matsudaira P, Darnell J. Molecular cell biology. 3rd ed. New York: Scientific American; 1995.

(*Name/s. Title. Edition(other than first). Place of publication: Publisher; year of publication. p. Page no*)

2. Citing a Chapter in an Edited Book (to which a number of authors have contributed)
- Name/s of author of the chapter
- Title of chapter followed by, In:
- Editor
- Title of book
- Series title and number (if part of a series)
- Edition (if not the first edition)
- Place of publication (if there is more than one place listed, use the first named)
- Publisher
- Year of publication
- Page numbers

(*Title of Chapter. In: Editor(s). Title of book and number. Edition (other than first). Place of publication: Publisher; year of publication. p. Page no*)

Example of citing a chapter in an edited book:

Porter RJ, Meldrum BS. Antiepileptic drugs. In: Katzung BG, editor. Basic and clinical pharmacology. 6th ed. Norwalk (CN): Appleton and Lange; 1995. p. 361-80.

3. Citing a Journal Article from a Print source
The essential details required are (in order):
- **Name/s of author/s of the article.**
  See step 1 of "Citing a book" for full details.
- **Title of article.**
  See step 2 of "Citing a book" for full details.

Example: Validation of an immunoassay for measurement of plasma total homocysteine.

- **Name of journal (abbreviated).**
- Abbreviate the name of the journal according to the style used in Medline.
- A list of abbreviations can be found at: http://w**ww.ncbi.nlm.nih.gov/entrez/query.fcgi?db=journals**
  Note: No punctuation marks are used in the abbreviated journal name.

Format: journal title abbreviation (1 space)

Example: Bang J Psychiatry

- **Year of publication (month or day should be omitted).**

Format: year (**semi-colon, one space**)

Example: 1996; 12(5): 127-33.

- **Volume number (and issue/part)**
  Format: volume number (**colon, one space**)

Example: 1996; 12(5): 127-33. Or 1996; 18: 1237-8.

- **Page numbers**

Note: Do not repeat digits unnecessarily

Format: page numbers (full-stop)

Example: 5310-5.

Example of citing a journal: Russell FD, Coppell AL, Davenport AP. In vitro enzymatic processing of radiolabelled big ET-1 in human kidney as a food ingredient. Biochem Pharmacol 1998; 55(5): 697-701.

Name(s). Title. Name of the Journal Year of publication; Volume Number (Session/Issue Number): Page Number.

➢ **No author given in article**

Example: Coffee drinking and cancer of the pancreas [editorial]. BMJ 1981; 283: 628.

➢ **Journals with parts and/or supplements**

Examples

- **Volume with supplement**

Environ Health Perspect 1994; 102Suppl 1: 275-82.

- **Issue with supplement**

SeminOncol 1996: 23(1 Suppl 2): 89-97.

- **Volume with part**

Ann ClinBiochem 1995; 32(Pt 3): 303-6.

4. Citing a Journal Article from Internet and Other Electronic Sources

This includes software and internet sources such as web sites, electronic journals and databases.

The **basic form** of the citations **follow the principles listed for print sources** (see above).

In the case of sources that may be subject to alteration it is important to acknowledge the **Date The Information Was Cited.** This is particularly true for web sites that may disappear or permit changes to be made and for CD-ROMS that are updated during the year.

4.1. Citing a Journal Article from the Internet

Note: Follow the same procedure for citing print journals as for electronic journals regarding date, volume pages and journal title

Format: Author/s (full-stop after last author, 1 space) **Title of article** (full-stop, 1 space)

Abbreviated title of electronic journal (1 space) **[serial online]** (1 space) **Publication year**

(1space) **month(s)** - if available (1 space) **[cited year month (abbreviated) day]** - in square brackets (semi colon, 1 space) **Volume number** (no space) **Issue number** if applicable in round brackets (colon) **Page numbers or number of screens** in square brackets (full-stop, 1 space) **Available from** (colon, 1 space) URL:**URL address underlined**

Examples:

- Morse SS. Factors in the emergence of infectious disease. Emerg Infect Dis [serial online] 1995 Jan-Mar [cited 1999 Dec 25]; 1(1):[24 screens]. Available from:URL: http://www/cdc/gov/ ncidoc /EID/eid.htm

- Garfinkel PE, Lin E, Goering P. Should amenorrhoea be necessary for the diagnosis of anorexia nervosa? Br J Psych [serial online] 1996 [cited 1999 Aug 17]; 168(4):500-6. Available from: URL:http://biomed. niss.ac.uk

4.2. Citing a Journal Article from WWW site

(If the author is not documented, the title becomes the first element of the reference.)

Format: Author (full-stop after last author, 1 space) **Title** (full-stop, 1 space) **[Online]** (full stop, 1 space) **Publication Year** (1 space) **[cited year month (abbreviated) day]** (semi colon) **Number of screens in square brackets or pages** (full-stop, 1 space) **Available from** (colon, 1 space)

URL: (no space) **URL address underlined**

Note: The number of screens is not necessary. Put a semi colon and 1 space after the cited date if no pages or screen numbers are listed.

When the date is approximated, indicate that by following the date with a question mark and inserting the statement in square brackets. Eg. [2001?]

Examples: National Organization for Rare Diseases [Online]. 1999 Aug 16 [cited 1999 Aug 21]; Available from: URL:http://www.rare diseases.org/

Royal College of General Practitioners.The primary health care team.[Online]. 1998 [cited 1999 Aug 22];[10 screens]. Available from:URL: http:// ww. rcgp.org.uk/ informat/ publicat/ rcf0021.htmZand J. The natural pharmacy: herbal medicine for depression [Online]. [1999?] [cited 2001 Aug 23];[15 screens]. Available from:

URL:http://www.healthy.net/asp/templates/Article.asp?PageType=Article&Id=920

Important Points For Reference List

- For **online material**, please cite the **URL**, together with the **date you accessed** the website
- **Online journal** articles can be cited using the Digital Object Identifier **(DOI)** number

Samples of Reference List

A list of references contains details of those works cited in the text.

The references are listed in the same numerical order as they appear in the body of the text

1. Getzen TE. Health economics: fundamentals and flow of funds. New York (NY): John Wiley & Sons; 1997.

2. Millares M, editor. Applied drug information: strategies for information management. Vancouver, WA: Applied Therapeutics, Inc.; 1998.

3. Australian Government Publishing Service. Style manual for authors, editors and printers. 5th ed. Canberra: Australian Government Publishing Service; 1994.

4. Australian Pharmaceutical Advisory Council. Integrated best practice model for medication management in residential aged care facilities. Canberra: Australian Government Publishing Service; 1997.

5. Bennett GL, Horuk R. Iodination of chemokines for use in receptor binding analysis. In: Horuk R, editor. Chemokine receptors. New York (NY): Academic Press; 1997. p. 134-48. (Methods in enzymology; vol 288).

6. Coffee drinking and cancer of the pancreas [editorial]. BMJ 1981;283:628.

7. Morse SS. Factors in the emergence of infectious disease. Emerg Infect Dis [serial online] 1995 Jan-Mar [cited 1996 Jue 5]; 1(1):[24 screens]. Available from: URL:http:// www. cdc.gov/ncidoc/EID/eid.htm

I A. 7. Conflict of interest

All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations.

It is important to be consistent when you are referencing.

I A. 8. Tables and Illustrations (Figures)

I A. 8 a) Tables

- In tables, capture information concisely and display it efficiently.
- Use tables /fig that are relevant to the study.
- Try to limit the number of tables/figures.
- Type or print each table with double-spacing on a separate sheet of paper. Number tables consecutively in the order of their first citation in the text and supply a brief title for each.
- Do not use internal horizontal or vertical lines. Give each column a short or an abbreviated heading. Authors should place explanatory matter in footnotes, not in the heading. Explain all nonstandard abbreviations in footnotes, and use the following symbols, in sequence:

  *, †, ‡, §, ‿, ¶, **, ††, ‡‡, §§, ‿ ‿, ¶¶, etc.

- Identify statistical measures of variations, such as standard deviation and standard error of the mean.
- Be sure that each table is cited in the text. If you use data from another published or unpublished source, obtain permission and acknowledge that source fully.

I A. 8 b) Illustrations (Figures)

Figures should be either professionally drawn and photographed, or submitted as photographic-quality digital prints. In addition to requiring a version of the figures suitable for printing, (for example, JPEG / GIF).

- Review the images of such files on a computer screen before submitting them to be sure that they meet their own quality standards. For x-ray films, scans, and other diagnostic images, as well as pictures of pathology specimens or photomicrographs, send sharp, glossy, black-and-white or color photographic prints, usually 127 _ 173 mm (5 _ 7 inches).
- Letters, numbers, and symbols on figures should therefore be clear and consistent throughout, and large enough to remain legible when the figure is reduced for publication.
- Photographs of potentially identifiable people must be accompanied by written permission to use the photograph.
- Figures should be numbered consecutively according to the order in which they have been cited in the text.

- If a figure has been published previously, acknowledge the original source and submit written permission from the copyright holder to reproduce the figure. Permission is required irrespective of authorship or publisher except for documents in the public domain.
- For illustrations in colour, MH Samorita Med Coll J accept coloured illustration when it seems essential. This Journal publish illustrations in colour only if the author pays the additional cost. Authors should consult the editorial board of the journal about requirements for figures submitted in electronic formats.

I A. 8 c) Legends for Illustrations (Figures)

- Type or print the legends for illustrations using double spacing, starting on a separate page, with Arabic numerals corresponding to the illustrations.
- When symbols, arrows, numbers, or letters are used to identify parts of the illustrations, identify and explain each one clearly in the legend. Explain the internal scale and identify the method of staining in photomicrographs.

I A. 9. Units of Measurement

- Measurements of length, height, weight, and volume should be reported in metric units (meter, kilogram, or liter) or their decimal multiples.
- Authors should report laboratory information in both local and International System of Units (SI).
- Drug concentrations may be reported in either SI or mass units, but the alternative should be provided in parentheses where appropriate.

I A. 10. Abbreviations and Symbols

- Use only standard abbreviations; use of nonstandard abbreviations can be confusing to readers.
- Avoid abbreviations in the title of the manuscript.
- The spelled-out abbreviation should be used in parenthesis on first mention followed by the use of abbreviation in parenthesis unless the abbreviation is a standard and well established one like 'WHO'.

I B. Submission of the Manuscript to the Journal

- If a paper version of the manuscript is submitted, send the required number of copies of the manuscript and figures; they are all needed for peer review and editing, as the editorial office staff cannot be expected to make the required copies.
- Manuscripts must be accompanied by a cover letter, conflicts of interest form, authorship and declaration proforma .
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I C. Editing and Peer Review

- All submitted manuscripts are subject to scrutiny by the Editor in-chief or any member of the Editorial Board.
- Manuscripts containing materials without sufficient scientific value and of a priority issue, or not fulfilling the requirement for publication may be rejected or it may be sent back to the author(s) for resubmission with necessary modifications to suit one of the submission categories.
- Manuscripts fulfilling the requirements and found suitable for consideration are sent for peer review.
- Submissions, found suitable for publication by the reviewer, may need revision/ modifications before being finally accepted.
- Finally, Editorial Board decides upon the publishability of the reviewed and revised/ modified submission.
- The reviewed and revised manuscript may be sent to the authors, and should be corrected and returned to the editorial office within one week. No addition to the manuscript at this stage will be accepted.
- All accepted manuscripts are edited according to the Journal's style.

I D. Checklist for Article Submission

As part of the submission process, authors are required to check off their submission's compliance with all of the following items, and submissions may be returned to authors that do not adhere to these guidelines.

Check Lists

Final checklists before you submit your revised article for the possible publication in the MH Samorita Med Coll J.

1. Forwarding/Cover letter and declaration form,
2. Authorship and conflicts of interest form,
3. Manuscript

If you have submitted mentioning document (1, 2, 3) above, when you first submit your article but if there is change in the authorship or related then you have to re-submit it.

- **General outline for article presentation and format**
- Double spacing
- Font size should be 12 in arial
- Margins 5 cm from above and 2.5 cm from rest sides.
- Title page contains all the desired information
- Running title provided (not more than 40 characters)
- Headings in title case (not ALL CAPITALS, not underlined)
- References cited in superscript in the text without brackets after with/without comma (,) or full stop (.)
- References according to the journal's instructions – abide by the rules of Vancouver Style.

- **Language and grammar**
- Uniformity in the language
- Abbreviations spelt out in full for the first time
- Numerals from 1 to 10 spelt out
- Numerals at the beginning of the sentence spelt out.

- **Tables and figures**
- No repetition of data in tables/graphs and in text
- Actual numbers from which graphs drawn, provided
- Figures necessary should be of good quality (colour)
- Table and figure numbers in Arabic letters (not Roman)
- Labels pasted on back of the photographs (no names written)
- Figure legends provided (not more than 40 words)
- Patients' privacy maintained (if not, written permission enclosed)
- Credit note for borrowed figures/tables provided.
- Each table/figure in separate pages.

I E. Manuscript Format for a Research Article

- **Title**
- Complete title of the article
- Complete author information
- Mention conflict of interest if any

- **Abstract**
- Do not use subheadings in the abstract
- Give full title of the manuscript in the abstract page
- Not more than 200 words for case reports and 250 words for original articles
- Structured abstract including introduction, methods, results and conclusion are provided for an original article and introduction, case report and conclusion for case reports.
- Key words provided – arrange them in alphabetical order should be 3-5 in number.

- **Introduction**
- Word limit 150 -200 words
- Pertinent information only

- **Material and Methods**
- Study Design
- Duration and place of study
- Ethical approval
- Patient consent
- Statistical analysis and software used.

- **Results**
- Clearly present the data
- Avoid data redundancy

- **Discussion**
- Avoid unnecessary explanation of someone else' work unless it is very relevant to the study
- Provide and discuss with the literatures to support the study with references.
- Mention about limitation of the study

- **Conclusion**
- Give your conclusion
- Any recommendation

- **Acknowledgement**
- Acknowledge any person or institution who have helped for the study

- **Reference**
- Abide by the Vancouver style
- Use reference at the end of the sentence after the full stop with superscript

- **Legends**
- Tables
- Figures

Editorial

Schizophrenia - An overview

Karim ME

Schizophrenia is a major mental disorder (psychotic disorder). Eugen Bleuler first introduces the term schizophrenia- "Splitting of mind". It is a disorder of thought and abstract thinking becomes concrete. Lifetime expectancy of schizophrenia is 1% of the general population. Worldwide prevalence of schizophrenia is 4-6/1000 population. Prevalence of schizophrenia in the adult population of Bangladesh is 0.6% and in children and adolescent population is 0.2%. Peak age of onset in between 18-30 years of age and range is 15-55 years. Male and female is equally affected.[1]

Schizophrenia is a multifactorial disorder where genetic, biochemical, social and environmental factors are involved. It is also believed that neurodevelopment anomalies may be associated with schizophrenia. Regarding genetic factors, if both parents are schizophrenic, chance in the offspring is 46% and if one parent is schizophrenic chance in the offspring is 17%. Risk in the second degree relatives is around 2.5%.[2] Environmental factor mostly emphasized on viral hypothesis and it is assumed that there is an effect of season of birth on schizophrenia and schizophrenic patients are more born in winter season as compared with other season. It was found in one study that 55.12% of schizophrenic patients was born in winter season.[3] Similar studies reported that increase risk for schizophrenia in winter born individuals to be 5-15%. Infection with influenza virus during first and second trimester of pregnancy and by cytomegalovirus may be associated with winter born prevalence of the disease.[4,5]

Schizophrenia is a psychotic disorder and clinical presentation varies from patient to patient. Patient with type I schizophrenia is presented with auditory hallucination, delusion, thought disorder, catatonia, bizarre behavior and due to dopaminergic over activity with good social recovery. Patient with type II schizophrenia is presented with apathy, poverty of speech, social withdrawal, loss of volition and due to structural abnormalities in the brain with poor social outcome. About 5-10% of schizophrenic patients may commit suicide.[2] Around 30% of the schizophrenic patients are treatment refractory and the identification of treatment resistant rests on the persistent of significant symptoms despite adequate pharmacological treatment.[6]

Prevailing superstitions and social stigmas (possession of jins, black magic, bad air influence, shame and fear about people comments, anxiety regarding marriage etc) in the community is associated with delayed initiation of treatment and patient suffering. It takes nearly six months or more to bring the patients for modern medical treatment. During this time many of the parents bring their patients to traditional healers and religious affiliated persons. Illiteracy, religious ignorance and maltreatment complicated the course and outcome of the treatment.

Schizophrenia is a treatable disorder and proper drug compliance, regular follow up, family support, psycho-education about the illness and social rehabilitation of the patient can give a new life to the patients and also minimizes the pressure on the family and society as a whole.[2]

Management of schizophrenia is a multidisciplinary approach. Governmental efforts, non-governmental organization (NGO's) involvements, community awareness program and scientific media coverage may play vital role in the management of this mysterious illness.

Prof. Dr. Md. Enayet Karim
Professor of Psychiatry
MH Samorita Hospital & Medical College, Dhaka

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Original Articles

Prevalence of Domestic Accident in Rural Area of Bangladesh

Shakil M[1], Alam AKMJ[2], Akter H[3], Mahbub S[4], Khan S[5], Rahman SMT[6]

Abstract:

Introduction: Domestic accidents are global health issues. Domestic accidents have not been identified till date to the similar manner as traffic and work-related injuries, mostly because they have not been efficiently calculated. Domestic accidents are preventable and can be drastically reduced by effective measures and safety consciousness.

Objective: To assess the prevalence of domestic accidents and the factors influencing it in a rural community.

Materials & Methods: It was a descriptive type of cross sectional study which was conducted from March 2014 to June 2014. The study was carried out in some selected villages in Dhamrai, which included Ayengoni, Shorif bag, Pathan toil, Islampur, Choibaria and other villages of Dhamrai upazilla. Sample size was 512 and purposive sampling was done. Data regarding self-reported domestic accidents in the last one year were collected using a semi-structured questionnaire and assessment of household hazards was done after examining the houses.

Results: Total 421 domestic accidents were found in our study during last one year, 102 domestic accidents were due to cut injury, 217accidents were seen among females, 25.7% of accidents took place in the kitchen, 24.5% of accidents took place while cooking and 63.66% of accidents took place in the afternoon. Domestic accidents were more common in females. Among the victims 81.71% required treatment and 132 of them got treatment from government hospital.

Conclusion: Practice regarding safety measures in kitchen was low among the household. Increased awareness, specially among female population is needed to reduce domestic accidents. Extra care should be taken for the extreme ages as they are more vulnerable to falls. It is essential that every house should have a first aid kit.

Key Words: Prevalence, domestic accidents, rural area

Introduction:

Domestic accidents are worldwide public health problem. The problem is graver in developing countries, particularly in rural areas, shanty towns or informal dwellings[1,2]. Accident has been defined as occurrence in a sequence of events which usually produces unintended injury, death or property damage[3]. Domestic accident is an accident that

1. *Dr. Mohammad Shakil, Associate Professor, Department of Community Medicine, Army Medical College Cumilla

2. Dr. AKM Jakirul Alam, Assistant Professor, Department of Community Medicine, Shahabuddin Medical College, Dhaka

3. Dr. Hosneara Akter, Assistant Professor, Department of Community Medicine, Shahabuddin Medical College, Dhaka

4. Dr. Samiha Mahbub, Junior consultant, SOB hospital, Mirpur, Dhaka

5. Dr. Sharmin Khan, Lecturer, Department of Community Medicine, Shahabuddin Medical College, Dhaka

6. Dr. S M Tauhidur Rahman, Associate Professor and Head of the Department of Anesthesia, Eastern Medical College, Cumilla

*Address of correspondence: Dr. Mohammad Shakil, Associate Professor, Department of Community Medicine, Army Medical College Cumilla. Mobile no: 01612711572, email: mshakil1470@yahoo.com

takes place at home or its immediate surrounding and more generally, all accidents not connected with traffic, vehicles and sports. Every domestic accident brings deleterious physical and mental health effects to the concerned victims and his/her family members. The victims suffer from physical & mental stress, loss of earning capacity and productivity[4,5,6]. The most common ones being drowning, burns, falls, poisoning and injuries from sharp, pointed objects or animals. Domestic accidents depend on the physical and social environment and also on the functional capacity of the individual. Different age groups have disparate factors like the elderly age group have low vision, slow reflexes while the toddlers do not achieve the cognitive maturity and coordination to predict the hazardous steps when not under supervision. Most of the domestic injuries are considered to be minor injuries and do not reach the level of health care intervention[7,8,9]. Majority of our people resides in the village. As Bangladesh is becoming more and more advanced in health & development issues, domestic accident is beginning to grab our attention. Moreover, the number of well recognized surveys on this topic in this region is negligible. Now, as we know the pattern of home accidents differs widely between rural and urban areas and as most of the people of this country live in the villages, in this paper we take the opportunity to assess the prevalence of domestic accidents, their types in a rural community and information about the victims to draw the attention of health care planners[10]. Accidents represent a major epidemic of non-communicable disease in our country. The public health experts have coined the name "Modern Day Epidemic" for accidents. Accidents especially domestic are a world-wide public health problem. Accidents have their own natural history and fortunately follow the same epidemiological pattern of agent, host and environment thereby facilitating their study. The relationship between domestic accidents and human health is direct and associated with a chain of socio-economic consequences[11]. Due to domestic accidents people may land up into economic loss, disability, deformity and premature death. The type of accidents varies with the age group; children in

particular are more vulnerable to domestic accidents during playing or sometimes due to lack of attention, elderly people are prone to accidents because of their failing vision, slow movements, osteoporosis and osteoarthritis. Along with the communicable and non-communicable diseases domestic accidents also attribute to a remarkable morbidity and mortality[12,13].

This study was done to find the prevalence and determinants of domestic accidents in some selected villages in Dhamrai Upazilla of Dhaka district.

Materials & Methods:
It was a descriptive type of cross sectional study which was conducted from March 2014 to June 2014. The study was carried out in some selected villages in Dhamrai, which included Ayengoni, Shorif bag, Pathan toil, Islampur, Choibaria and other villages of Dhamrai upazilla. Study population was all ages residing in that area. Purposive sampling was done. Sample size was 512. Pretested semi-structured questionnaire was used for data collection. After introductory conversation and obtaining consent from the respondent the relevant data were collected by face to face interview. Data were recorded in the questionnaires. All filled up data were verified for its consistency. The data were then compiled and tabulated manually according to key variable in master sheet. Then finally data were analyzed in computer using MS word and MS Xcel.

Results:
Table 1 shows the socio-demographic characteristics of the respondents of the present study. Most of the respondents were 31-40 age group 154 (30.1%). Female were 316 (61.7%) and 484 (94.5%) of them were Muslim. In case type of family nuclear family was 333 (65%) then Joint family 179 (35%). About educational qualifications most of them were Primary level pass 198 (38.7%) then followed by illiterate, Secondary, higher secondary, graduate and post-graduate respectively 149 (29.1%), 109 (21.3%), 35 (6.8%), 19 (3.7%), 2 (0.4%). Family size of the respondents were 4 Member 145 (28.3%) in most of them, most of the respondents were housewife 255 (49.9%), monthly family income of the respondents >10,000 taka 352 (68.7%) and lives in Semi pacca house 186 (36.3%).

Table 1: Socio-demographic Characteristics of the respondents (n=512)

Characteristics	Group	Number	Percentage
Age (years)	≤20	31	6.1
	21-30	107	20.9
	31-40	154	30.1
	41-50	130	25.4
	Ã 50	90	17.5
Religion	Muslim	484	94.5
	Hindu	26	5.1
	Christian	1	0.2
	Buddha	1	0.2
Sex	Male	196	38.3
	Female	316	61.7
Family type	Nuclear	333	65
	Joint	179	35
Educational qualifications	Illiterate	149	29.1
	Primary	198	38.7
	Secondary	109	21.3
	Higher secondary	35	6.8
	Graduate	19	3.7
	Post-graduate	2	0.4
Family size	2 Member	32	6.3
	3 Member	77	15
	4 Member	145	28.3
	5 Member	101	19.7
	6 Member	54	10.5
	> 7 Member	103	20.2
Occupation	Student	23	4.5
	Service	42	8.2
	Business	56	10.9
	Farmer	54	10.5
	Day labour	36	7.0
	Servant	31	6.1
	Housewife	255	49.9
	Others	15	2.9
Monthly family income (in Taka)	<5000	138	27
	5000-10000	22	4.3
	>10,000	352	68.7
Type of residence	Kacha house	83	16.2
	Semi pacca house	186	36.3
	Pacca house	69	13.5
	Tin Shed	174	34.0

Figure 1 shows the distribution of the respondent affected by domestic accident occurring during last one year. In last one year 421((82.2%) respondents told they had experience of domestic accidents.
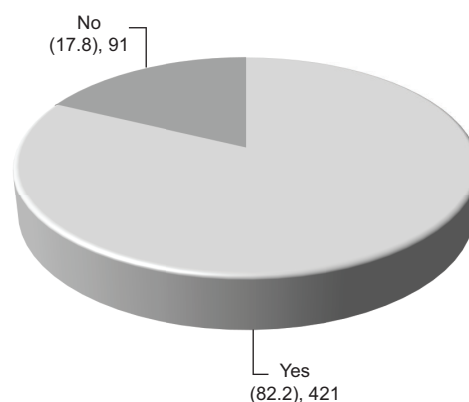
Fig. 1: *Distribution of the respondent affected by domestic accident occurring during last one year. (n=512)*

Table 2 shows the distribution of the accident victims by sex. Females were 217 (51.5%) and males 204 (48.5%).

Table 2: Distribution of the accident victims by sex. (n=421)

Sex	Frequency	Percentage
Male	204	48.5
Female	217	51.5
Total	421	100

Table 3 shows the distribution of the victims by cause. Most of the respondents told about cut injury 102 (24.2%) then followed by burns 78 (18.5%), fall 65 (15.4%), electric shock 33 (7.8%), drowning and animal bite 31 (7.4%) were important one.

Table 3: Distribution of the victims by cause of domestic accident. (n=421)

Causes of domestic accident	Frequency	Percentage
Burns	78	18.5
Cut injury	102	24.2
Snake bite	15	3.6
Drowning	31	7.4
Trauma by animal	26	6.2
Electric shock	33	7.8
Poisoning	26	6.2
Fall	65	15.4
Animal bite	31	7.4
Others	14	3.3
Total	421	100

Table 4 shows the distribution of the victims by activities during domestic accident. Most of the domestic accidents occurred when they were cooking 103 (24.5%), then followed by others 102 (24.2%), playing 98 (23.3%), bathing 59 (14.0%), working in field 36 (8.6%) and electric work 23 (5.4%) respectively.

Table 4: Distribution of the victims by activities during domestic accident. (n=421)

Activities during occurrence	Frequency	Percentage
Cooking	103	24.5
Playing	98	23.3
Bathing	59	14.0
Electric work	23	5.4
Working in field	36	8.6
Others	102	24.2
Total	421	100

Table 5 shows the distribution of the victims by place of domestic accident. Most of the domestic accidents took place in kitchen 108 (25.7%) then followed by Yard 80 (19.0%), others 73 (17.3%), room 70 (16.6%), pond 52 (12.4%), toilet 25 (5.9%) respectively.

Table 5: Distribution of the victims by place of domestic accident. (n=421)

Place of accident	Frequency	Percentage
Kitchen	108	25.7
Yard	80	19.0
Pond	52	12.4
Toilet	25	5.9
Room	70	16.6
Cow shade	13	3.1
Others	73	17.3
Total	421	100

Table 6 shows the distribution of the victims by time of domestic accident happened. Most of the domestic accidents took place in the afternoon 268 (63.66%) then followed by morning 87 (20.7%), night 37 (8.8%), evening 29(6.9%) respectively.

Table 6: Distribution of the victims by time of domestic accident. (n=421)

Time of accident	Frequency	Percentage
Morning	87	20.7
After noon	268	63.66
Evening	29	6.9
Night	37	8.8
Total	421	100

Table 7 shows the distribution of the victims by treatment requirement. Among the victims 344 (81.71%) required treatment and 7 (18.29%) did not requirement any treatment.

Table 7: Distribution of the victims by treatment requirement. (n=421)

Treatment required	Frequency	Percentage
Yes	344	81.71
No	77	18.29
Total	421	100

Figure 2 shows the distribution of the victims by place from where they took the required treatment. Most of the respondents took the required treatment from government hospital 132 (38.37%).
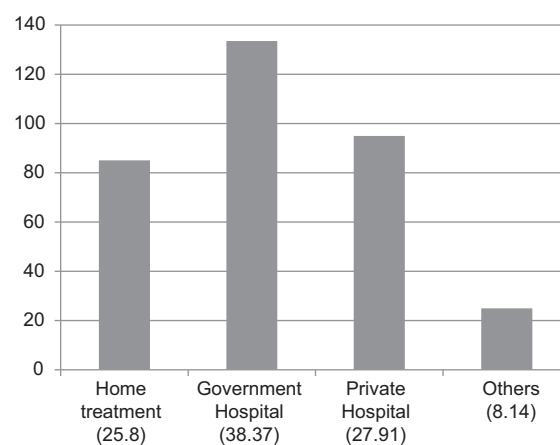

Fig. 2: *Distribution of the victims by place of treatment taken after domestic accident. (n=344)*

Discussion:

Out of 512 study subjects 421 had suffered domestic accidents in the past 1 year time. In our study the overall prevalence of domestic accident was 82.2%.

Orisa-Ubi and Charity Ogwueru[14] also reported prevalence of 77.2 % in their study which was done in 2016. Kaur et al. reported prevalence of 78% among the children less than ten years of age living in rural area at village Khera and Jhammat, Ludhiana in 2016[15], which is quite near prevalence to our study. Soumyashree et al. conducted a domestic accidents study in urban area of Belagavi from December 2015 to March 2016[16], however the prevalence was more than fifty percent in their study (51.7%), this difference in the prevalence may be due to the study being done in urban area and duration of study was 6 months, whereas our study was done in rural area and was done for a period of 1 year. Females had domestic accidents more common than males which was similar to the findings of Sudhir et al.[17] Cut injury were the most common domestic accident in this study (24.2%) followed by burns (18.5%) and fall (15.4%). Where as in the studies conducted by Rasika Jayasekera[18], P. Stalin et al.[19], Antony Vincent[20], K. Mackessack-Leitch[21] reported falls were the most common domestic accidents. This variation may be due to difference in socio cultural practices and level of awareness. Accidents were more common while cooking (24.5%). In our study kitchen (25.7%) and Yard (19.0%) were the common places for domestic accidents which were similar to the findings of Sudhir et al.[17] and George S et al.[22] If we see the timing of the accidents, morning and afternoon were the commonest time period for the domestic accidents in our study which was similar to the results of Bhandari et al.[23] and Sudhir et al. [17] It was observed that among all cases of domestic injury, 180 (42.8%) cases took treatment from nearest health care delivery point, 88 (20.9%) took home treatment. Among 421 domestic accidents 344 required treatment and for treatment they either went to government hospital (38.37%) or treated themselves at home (25.8%).

Conclusion:

The present study concludes that the most commonly encountered domestic accidents are cut injury by sharp/ pointing instruments. The prevalence of domestic accidents among female were found to be 51. 5%. Further study may be conducted on background factors, initiating factors and immediate factors to find out the actual causes behind these domestic accidents. Preventive measures including safety measures, suitable and risk development at community level and education about the early treatment of domestic accidents can play an increasingly important role in the prevention of domestic accidents at the rural areas of developing countries.

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Determinants of Female Infertility among Married Couples in a Tertiary Hospital in Bangladesh

Anwary SA[1], Alfazzaman M[2], Mahzabin Z[3], Mostofa MA[4], Bari N[5], Nuruzzaman GM[6], Nahar A[7]

Abstract:

Introduction: Infertility is defined as the inability to conceive at least one year after regular and unprotected sexual intercourse. The prevalence of infertility differs from one country to another and is reported to range from 5 to 30% in various countries. As estimated by the World Health Organization (WHO), 60–80 million couples are currently suffering from infertility. Roughly 40 % of cases involve a male contribution or factor, 40 % involve a female factor, and the remainders involve both sexes.

Objective: To assess the determinants of female infertility among the infertile couples attending the outpatient department of infertility unit of the department of obstetrics and gynaecology of Bangabandhu Shiekh Mujib Medical University, Shahbagh, Dhaka.

Materials and Methods: This prospective observational study was conducted in the Infertility unit, Department of Obstetrics and Gynaecology, Bangabandhu Shiekh Mujib Medical University (BSMMU), Dhaka, during the period from 31.10.2016 to 21.03.2018. Five hundred infertile females were recruited from the out-patient department of infertility unit who came to take treatment for their infertility problem.

Results: Age of the female partners was 18 – 44 years, mean ± SD (27.1 ± 5.2). Majority of the study subjects had secondary level of education (49.4%).

Majority of them were housewives (79.0%), followed by service holders (20.6%) and business women (0.4%). Majority of them hailed from rural area (62%). According to BMI, majority of them were overweight (56%). Among the respondents, majority of them had primary infertility (59.8%) and the rest (40.2%) had secondary infertility. Duration of marital life (in years) of the infertile couples were < 5 years (45.0%), 5 – 10 years (32.8%), 10 – 15 years (15.4%), 15 – 20 years (6.2%), > 20 years (0.6%). Regarding hormonal status of infertile women, most of them (94%) had serum FSH below normal (< 3U/L), serum LH below normal (< 2U/L) in 96% patients, Serum TSH above normal (>4.5 mU/L) in 49.0% patients, serum FT4 above normal (>21 pml/L) in 60.8% patients, serum Prolactin level above normal (>630 mU/L) in 27.8% patients. Regarding structural abnormalities of female organs bicornuate uterus was found in 15.2% patients, abnormal uterine cavity in 11.4% patients. In 13.0% patients abnormal right ostium were found and in 12.6% patients abnormal left ostium were found. Intrauterine adhesion was found in 35.2% patients and submucus fibroid in 17.6% patients. Abnormal right fallopian tube was found in 33.2% patients and abnormal left fallopian tube was found in 34.2% patients. Dye test in 42.4% patients were negative that means the tubes were blocked.

Conclusion: This study shows that a significant percentage of females are suffering from infertility. The major determinants of infertility are hormonal, structural abnormalities of the uterus, fallopian tubes, infection of genital tract and partly psychological.

Key words: Female Infertility, Determinants, Hormonal, Structural abnormality.

1. *Dr. Shaheen Ara Anwary, Assistant Professor, Infertility Unit, Department of Obstetrics and Gynaecology, Bangabandhu Sheikh Mujib Medical University (BSMMU), Shahbag, Dhaka, Bangladesh.

2. Dr. Md. Alfazzaman, Associate Professor, Department of Surgery, MH Samorita Medical College and Hospital, Dhaka, Bangladesh.

3. Dr. Zeenat Mahzabin, Resident, MS Surgical Oncology Course, National Institute of Cancer Research and Hospital, Dhaka, Bangladesh.

4. Dr. Munshi Akid Mostofa, Assistant Registrar, Department of Oncourology, National Institute of Cancer Research and Hospital, Dhaka, Bangladesh.

5. Dr. Nahla Bari, Professor and head of the department of Obstetrics and Gynaecology, MH Samorita Medical College and Hospital, Dhaka, Bangladesh.

6. Dr. G. M. Nuruzzaman, Junior Consultant Surgery, Sadar Hospital,Narail.

7. Dr. Amirun Nahar, Lecturer, Department of Pharmacology and Therapeutics, ZH Sikder Women's Medical College and Hospital, Dhaka, Bangladesh.

*Address of correspondence:** Dr. Shaheen Ara Anwary, 6/7, Shegunbagicha, flat no A – 10, Dhaka – 1000. Tel: 01718271719, 01715043612. E- mail: drshaheenara1965@gmail.com

Introduction:

Infertility may be defined as a lack of conception after 1 – 2 years of unprotected coitus [1]. In a normal population approximately 60 % of couples will achieve pregnancy within 6 months, 80 % by 12 months, and 90 % by 18 months leaving approximately 10 % of couples arbitrarily classified as infertile. A general classification of causes of infertility are male 35 – 40 %, female 40 – 50 % (tubal 25 %, ovulatory 20 % and cervical 1 – 2 %), sexual 10% and unknown 10 % [2]. More than one factor per couple accounts for total percentage appearing to exceed 100 %. Increased public awareness of the natural age-related decline in fertility and the increasing risk of chromosomally abnormal offspring with advancing maternal age, at a time when large numbers of women have deferred childbearing to pursue to carriers, has led to a new sense of urgency among the many couples who now seek to initiate and complete their families over a relatively short period of time before age 40[2].

Female factors relating to the female infertility may be defined as i) General factors (diabetes mellitus, thyroid disorders, adrenal disease, significant liver/ kidney disease,), ii) Psychological factors, iii) Hypothalamic-pituitary factors (Kallmann syndrome, hypothalamic dysfunction, hyper-prolactinaemia, hypopituitarism), iv) Ovarian factors (polycystic ovarian syndrome, anovulation, diminished ovarian reserve, luteal dysfunction, premature menopause, gonadal dysgenesis, i.e. 'Turner syndrome', ovarian neoplasm), v) Tubal/ peritoneal factors (endometriosis, pelvic adhesions, PID, usually due to Chlamydia, tubal occlusion), vi) Uterine factors (uterine malformations, uterine fibroid i.e. leiomyoma, Asherman's syndrome), vii) Cervical factors (cervical stenosis, antisperm antibodies, insufficient cervical mucus which is needed for travel and survival of sperm), viii) Vaginal factors (vaginismus, vaginal obstruction), and ix) Genetic factors (various intersexed conditions such as androgen insensitivity syndrome[3]).

Materials and Methods:

This study was a prospective type of observational study which was conducted in the Infertility unit, Department of Obstetrics and Gynaecology, Bangabandhu Shiekh Mujib Medical University (BSMMU), Dhaka, during the period from 31.10.2016 to 21.03.2018.

Bangabandhu Shiekh Mujib Medical University (BSMMU) is a tertiary hospital, where patients of infertility come from different parts of the country, and most modern treatment and management are given for the infertile couples.

Five hundred infertile couples were recruited from the out-patient department of infertility unit who came to take treatment for their infertility problem either primary or secondary. All the study subjects were informed about the study.

Ethical clearance was taken from the Infertility unit, Department of Obstetrics and Gynaecology, Bangabandhu Shiekh Mujib Medical University (BSMMU). Data were collected from 500 female partners.

After collecting the data, they were analyzed by appropriate statistical methods using Statistical Package for Social Sciences (SPSS) software programme.

Results:

Table 1: Socio-demographic characteristics of the study subjects (n=500)

Socio-demographic characteristics	Frequency	Percentage
Age of the participants (in years)		
18-20	32	6.4
21-25	198	39.6
26-30	152	30.4
31-35	83	16.6
36-40	31	6.2
41-45	4	.8
Mean±SD (range: min-max)27.1±5.2 (18 – 44 years)		
Husband's age group (in years)		
21-25	14	2.8
26-30	166	33.2
31-35	160	32.0
36-40	103	20.6
41-45	42	8.4
46-50	10	2.0
51-55	5	1.0
Mean±SD (range: min-max)34.0±5.9 (22 – 55 years)		
Educational level of female partner		
Illiterate	8	1.6
Primary	49	9.8
Secondary	247	49.4

(table continued)

Graduate	87	17.4
Postgraduate	54	10.8
Others	55	11.0
Educational level of male partner		
Illiterate	5	1.0
Primary	27	5.4
Secondary	152	30.4
Graduate	148	29.6
Postgraduate	74	14.8
Others	94	18.8
Occupation of female partner		
Housewife	395	79.0
Service	103	20.6
Business	2	.4
Occupation of male partner		
Unemployed	6	1.2
Service	356	71.2
Business	138	27.6
Religion		
Islam	476	95.2
Others	24	4.8
Monthly family income of infertile couple (in Taka)		
<10000	52	10.4
10000-20000	188	37.6
20000-40000	212	42.4
>40000	48	9.6
Area of residence		
Urban	176	35.2
Rural	310	62.0
Slum	14	2.8
BMI (kg/m^2)		
Underweight (<18.0)	4	.8
Normal weight (18-24.99)	127	25.4
Overweight (25-29.99)	281	56.2
Obese (>30.0)	88	17.6

Table 1 shows the socio-demographic characteristics of the study subjects. Age of the female patients were 18 – 44 years, Mean ± SD (27.1 ± 5.2).

Educational level of female partners were, illiterate 8 (1.6%), primary 49 (9.8%), secondary 247 (49.4%), graduate 87 (17.4%), postgraduate 54 (10.8%), 0thers 55 (11.0%).

Occupation of female partners were, housewife 395 (79.0%), service 103 (20.6%), business 2 (0.4%).

Monthly income of the infertile couple were in taka, < 10000, 52 (10.4%), 10000 – 20000, 188 (37.6%), 20000 – 40000, 212 (42.4%), > 40000, 48 (9.6%).

Area of residence: urban 176 (35.2%), rural 310 (62.0%), slum 14 (2.8%).

BMI (kg/m^2) of the female partners were, underweight 4 (0.8%), normal weight (18-24.99) 127 (25.4%), overweight 281 (56.2%), obese 88 (17.6%).

Table-2: Type of infertility of the study subjects (n=500)

Type of infertility	Frequency	Percentage
Primary	299	59.8
Secondary	201	40.2
Total	500	100.0

Table 2 shows the type of infertility of the study subjects.

Primary infertility 299 (59.8%), secondary infertility 201 (40.2%).

Table-3: Duration of marital life of the infertile couples (n=500)

Duration of marital life (years)	Frequency	Percentage
<5	225	45.0
5-10	164	32.8
10-15	77	15.4
15-20	31	6.2
>20	3	.6
Total	500	100.0

Table 3 shows the duration of marital life (in years) of the infertile couples. It was revealed that marital life of <5 years was found in 45% couples, followed by 5 – 10 years in 32.8% couples, 10 – 15 years in 15.4% couples, 15 – 20 years in 6.2% couples and >20 years in 0.6% couples.

Table 4 shows hormonal status of infertile women.

It depicts that Serum FSH was below normal (< 3U/L) in 470 (94%) patients, normal (3 – 10 U/L) in 27 (5.4%) patients and above normal (>10 U/L) in 3 (0.6%) patients. Serum LH was below normal (< 2U/L) in 480 (96%) patients, normal (2 – 9 U/L) in 17 (3.4%) patients and above normal (>9.0 U/L) in 3 (0.6%) patients. Serum TSH was normal (0.2 – 4.5 mU/L) in 255 (51.0%) patients and above normal (>4.5 mU/L) in 245 (49.0%) patients. Serum FT4 normal (9 – 21 pmol/L) in 196 (39.2%) patients and above normal (>21 pml/L) in 304 (60.8%) patients. Serum Prolactin level was normal (25 – 630 mU/L)

Table-4: Hormonal status of infertile women (n=500)

Hormonal status	Frequency		Percentage
FSH	Below normal (<3 U/L)	470	94.0
	Normal (3.0-10.0 U/L)	27	5.4
	Above normal (>10 U/L)	3	.6
LH	Below normal (<2 U/L)	480	96.0
	Normal (2.0-9.0 U/L)	17	3.4
	Above normal (>9.0 U/L)	3	.6
TSH	Normal (0.2-4.5 mU/L)	255	51.0
	Above normal (>4.5 mU/L)	245	49.0
FT4	Normal (9-21 pmol/L)	196	39.2
	Above normal (>21 pmol/L)	304	60.8
Prolactin	Normal (25-630 mU/L)	361	72.2
	Above normal (>630 mU/L)	139	27.8
Testosterone	Normal (10-30 nmol/L)	133	26.6
	Above normal (>30 nmol/L)	367	73.4

in 361 (72.2%) patients and above normal (>630 mU/L) in 139 (27.8%) patients.

Table-5: Structural abnormalities of female organs (n=500)

	Frequency	Percentage
HSG findings		
Abnormal uterine cavity	2	0.40
Septed	21	4.2
Bicornuate	76	15.2
Unicornuate	5	1.0
Endometrial polyp	8	1.6
Hysteroscopy		
Abnormal uterus	6	1.2
Abnormal cavity	57	11.4
Abnormal Endometrium flakes	62	12.4
Ostium		
Abnormal (Right)	65	13.0
Abnormal (Left)	63	12.6
Any pathology		
Intrauterine adhesion	176	35.2
Polyp	14	2.8
Submucous fibroid	88	17.6
Laparoscopy		
Abnormal Uterus	15	3.0
Abnormal (Right)	166	33.2
Abnormal (Left)	171	34.2
Fallopian tubes		
Abnormal (Right)	185	37.0
Abnormal (Left)	188	37.6
Ovary		
Pouch of Douglas (free)	315	63.0
Dye test (positive)	288	57.6

In table 5 shows the structural abnormalities of female organs.

In Hysterosalpigography (HSG), it was revealed that abnormal uterine cavity was found in 2 (0.40%) patients, septed uterus in 21 (4.2%) patients, bicornuate uterus in 76 (15.2%) patients, and unicornuate uterus in 5 (1.0%) patients and endometrial polyp in 8 (1.6%) patients.

In Hysteroscopy, it was revealed that abnormal uterus was found in 6 (1.2%) patients, abnormal uterine cavity in 57 (11.4%) patients and abnormal endometrial flakes were found in 62 (12.4%) patients.

In 65 (13.0%) patients abnormal right ostium were found and in 63 (12.6%) patients abnormal left ostium were found.

During Hysteroscopy, there were found intrauterine adhesion in 176 (35.2%) patients, polyp in 14 (2.8%) patients and submucus fibroid in 88 (17.6%) patients.

During Laparoscopy, abnormal uterus were found in 15 (3%) patients, abnormal right fallopian tube were found in 166 (33.2%) patients and abnormal left fallopian tube were found in 171 (34.2%) patients.

During Laparoscopy, it was found abnormal right fallopian tube in 185 (37.0%) patients and abnormal left fallopian tube was found in 188 (37.6%) patients.

During laparoscopy, there also was found pouch of Douglas free in 315 (63%) patients.

During dye test in laparoscopy, 288 (57.6%) patients were found positive and rest of the patients was negative that means the tubes were blocked.

Discussion:

Our study attempted to assess the determinants of female infertility among the married couples who had attended the infertility outpatient department of Bangabandhu Shiekh Mujib Medical University, Shahbagh, Dhaka.

Socio-demographic characteristics of the married couples attending the infertility outpatient department are one of the determinants affecting fertility. In our study, it was found that rural residents 310 (62%) were more sufferer of infertility than urban 176 (35.2%) ones. Mallikarjuna M, et al also found in their study that rural couples are more sufferers in infertility than urban [4]. BMI more than 25 were found in 281 (56.2%) cases and they were more affected by infertility in females. Giwercman A et al. also found similar results like ours [5]. Primary infertility was significantly higher 299 (59.8%) than secondary infertility 201 (40.2%). Similarly, one study by Singh K et al. in Bihar, India also found likely results [6].

Regarding socio-demographic characteristics, results of our study also corresponds to the study of Tamarkar et al in Nepal[7].

Bayu et al (2021) in Ethiopia from the demographic health survey showed the Prevalence and Potential determinants of primary infertility which also corresponds to our study [8].

In our study, nearly 77% of infertile couples reported to hospital for treatment between 2- 10 years of marriage. Singh K et al. in Bihar, India also shows the same presentation like ours [6].

Determinants of infertility among the female partners of the couple were hormonal status like FSH below normal (<3 U/L) was in 470 (94%) cases, LH below normal (<2 U/L) was in 480 (96%) cases, TSH above normal (>4.5 mU/L) was in 245 (49%) cases, serum prolactin above normal (>630 mU/L) was in 139

(27.8%) cases which corresponds with the results of infertile married women of India and Ethiopia [6, 8].

Our study findings about structural abnormalities of female organs which are the determinants of female infertility like HSG findings, Hysteroscopic findings, any pathology of uterus, laparoscopic findings of uterus, fallopian tubes and ovary all corresponds to the findings of Bihar, India [6].

Conclusion:

The present study found a significant percentage of females are suffering from infertility, both primary and secondary. There is considerable association of determinants of infertility among the female partners of the couples of different parts of the country who came to this well-known and reputed tertiary hospital. Female partners of the couples showing the major determinants of infertility are hormonal, structural abnormalities of the uterus, fallopian tubes, infection of genital tract and partly psychological.

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A Retrospective Study of 269 Cases of Road Traffic Accidents in Dhaka City, Bangladesh

Islam F[1], Maksud M[2], Hossain MI[3], Bose PK[4], Biswas M[5], Khan RH[6], Liza JM[7]

Abstract

Introduction: Road traffic accidents (RTA) are a major public health and development problem. Worldwide almost 1.3 million people are killed on the road every year. In Bangladesh, traffic accidents are one of the main reasons for loss of human lives and national properties, due to crisis of road safety measures. The consequences of RTA can even breakdown the whole family both psychologically and financially.

Objectives: The objective of this study was to find out the frequency, socio-demographic status of the victim, to identify the vehicles involved in the accident, injury patterns of RTA deaths as well as to identify the magnitude of the problem by creating nationwide awareness in order to minimize road traffic accidents in the country.

Materials and Methods: This retrospective study was conducted in the Department of Forensic Medicine & Toxicology, Dhaka Medical College over the two- year duration, from January 2018 to December 2019. A total of 269 cases of RTA were examined and the data were recorded.

Results: This study shows that a total of 269 post mortems of RTA cases were conducted at Dhaka Medical College morgue during January 2018 to December 2019. In the year 2018, greater number of the accidents occurred during August 20(17.3%) and June 19(16.5%). Likewise in 2019, most accidents occurred during June 28 (18.1%) and August 25 (16.2%). Among the victims, 207 (77%) were male and 62 (23 %) were female. According to relation with age, highest incidence of fatality was 92 (34.2%) which belonged to age group 31 to 40 years followed by 75(27.8 %), which belonged to 21 to 30 years of age group. Considering the injury patterns, all victims had multiple abrasion and bruise 269 (100%), followed by head injury 68 (25.2%) and intracranial haemorrhage 52 (19.3%). The most common type of vehicles involved in RTA was trucks 62(23%) and buses 56 (20.8%).

Conclusion: Road traffic accidents produce a huge negative impact on victim's physical and mental health as well as on the socioeconomic sector. As a developing country, strict law enforcement should be raised to address the issue.

Keywords: Road traffic accident, public health, road safety.

Introduction:

Injuries and deaths due to traffic injuries are a major public health concern worldwide. Globally, RTA is one of the leading causes of death by injury and ninth leading cause of all deaths.[1] It is estimated that at least 21 people die every day in the capital city.[2] The actual rate of fatality is likely to be even higher. According to a road safety campaign by 'Nirapad Sarak Chai' survey, at least 4,439 people were killed and 7,425 people injured in traffic accidents across

1. *Dr. Farzana Islam, Associate Professor & Head, Dept. of Forensic Medicine & Toxicology, Ibrahim Medical College, Dhaka.
2. Dr. Md. Maksud, Associate Professor & Head, Dept. of Forensic Medicine & Toxicology, Dhaka Medical College, Dhaka.
3. Dr. Md. Iqbal Hossain, Professor & Head, Dept. of Forensic Medicine & Toxicology, MH Samorita Medical College, Dhaka.
4. Dr. Palash Kumar Bose, Associate Professor & Head, Dept. of Forensic Medicine & Toxicology, Enam Medical College, Savar, Dhaka.
5. Dr. Mitra Biswas, Assistant Professor, Dept. of Forensic Medicine & Toxicology, MH Samorita Medical College, Dhaka.
6. Dr. Rakibul Hasan Khan, Lecturer, Dept. of Forensic Medicine & Toxicology, Sheikh Hasina Medical College, Tangail.
7. Dr. Jinat Mustary Liza, Assistant Professor, Dept. of Forensic Medicine & Toxicology, Ibrahim Medical College, Dhaka.

*Address of Correspondence: Dr. Farzana Islam, Associate Professor & Head, Dept. of Forensic Medicine & Toxicology Ibrahim Medical College, 1/A, Ibrahim Sarani, Segunbagicha, Dhaka -1000, Call: 01732122903, Email: farzanamitu@gmail.com

the country in 2018. This number increased by 51.53% and death increased by 17.75 % in 2019 compared to 2018. In 2019, the total number of accidents in the country was 4,702 out of which, there were 5,227 deaths and 6,953 people injured in 4702 road accidents across the country.[3] The reason behind the increased number of accidents and casualties include combination of slow and fast vehicles on the road, defective roads with poor street lightings, defective layout of cross roads, poor road environment with almost no segregation of pedestrians from wheeled traffic, overloading of vehicles, reckless driving, not obeying or following traffic rules, driver fatigue, alcohol intake by drivers, lack of awareness among the road users including drivers and pedestrians, poor weather conditions and lack of use of safety measures lead to such fatal accidents and deaths.[4] Road traffic accidents occur when a vehicle collide with another vehicle, pedestrian, animal, road debris or other stationary barrier, such as a tree or utility pole. The victims injured by accidents on the road are divided into three broad groups: pedestrians, cyclists (pedal or motor) and the drivers and passengers of vehicles. Of these three broad groups, it is the pedestrians that are most often injured.[5] The usual characteristic injuries in pedestrians are abrasion, bruise, laceration, bumper fracture, crushing of the head, avulsed lacerations of the limbs, blunt trauma to the chest or abdomen, crush syndrome, fracture of the ribs, hip bone, rupture of the viscera or vital structures.[6] The injury sustained by the front seat passengers including drivers are abrasions, lacerations, fracture of legs around knee or around the upper shin level, posterior dislocation of hip joint, steering wheel may cause severe internal injuries, bruising of skin, fracture of ribs and/or sternum, cardiac contusions, haemothorax, pneumothorax or both, rupture of liver, laceration of aorta, avulsion of heart, sparrow-foot injuries to face, head injuries and whiplash injuries.[7]

Materials and Methods:

This was a retrospective type of study.The study was conducted in the department of Forensic medicine & Toxicology of Dhaka Medical College, during January 2018 to December 2019. A total of 269 cases of road traffic accidents were examined and recorded. Data were collected on the pertinent variables from inquest report, challan and post mortem reports. Collected data were presented by frequency distribution tables and diagram. Data analysis was done by SPSS version 12.

Results:

Figure 1: Shows that out of 115 RTA cases, the highest number of RTA in 2018 occurred in the month of August 20(17.3%) & June 19(16.5%). In 2019, out of 154 RTA, maximum cases were reported in June 28 (18.1%) & August 25 (16.2%).
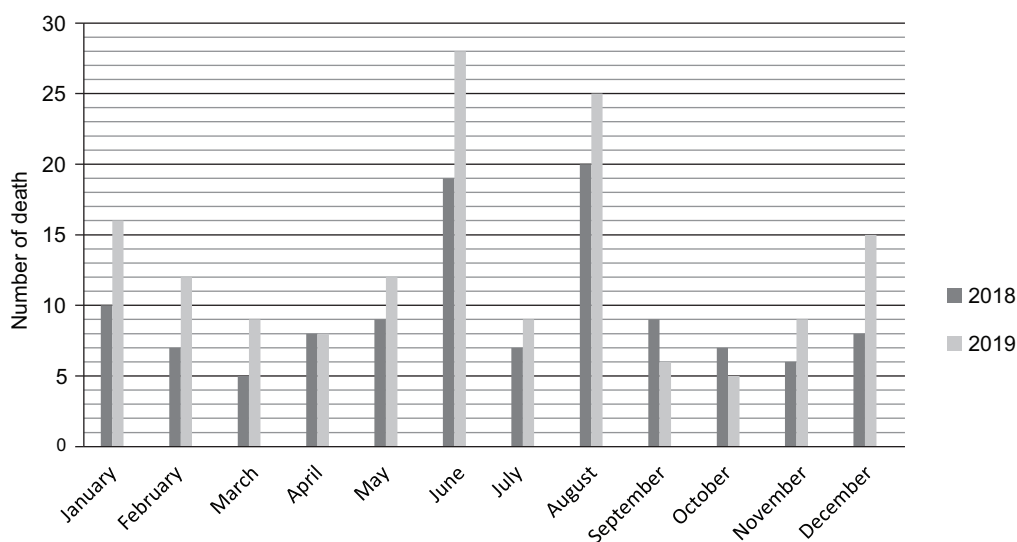

Fig. 1: *Month wise reported cases of RTA*

Table 1: Shows that 207 (77%) victims of RTA were male &62 (23%) victims were female.

Table 1. Distribution of victims of RTA by Sex (N= 269)

Sex	Frequency	Percent
Male	207	77
Female	62	23
Total	269	100

Table 2: Shows that 92(34.2%) victims of RTA belonged to the age group 31.5 to 41 years, 75(27.8%) victims belonged to age group 21.5 to 31 years & 43(15.9%) belonged to 41.5 to 51 years of age group.

Table 2. Distribution of victims of RTA by Age (N=269)

Age group (in years)	Frequency	Percent
05-11	05	1.8
11.5-21	28	10.4
21.5-31	75	27.8
31.5-41	92	34.2
41.5-51	43	15.9
51.5-61	15	5.5
61.5-71	07	2.6
71.5 and above	04	1.4

Figure 2: Shows various injuries sustained by the victims with commonest injuries being abrasion & bruise 296(100%), followed by head injury 68(25.2%), intracranial haemorrhage 52 (19.3%), fractures of ribs 36 (13.3%), fracture of hip bone 34(12.6%).
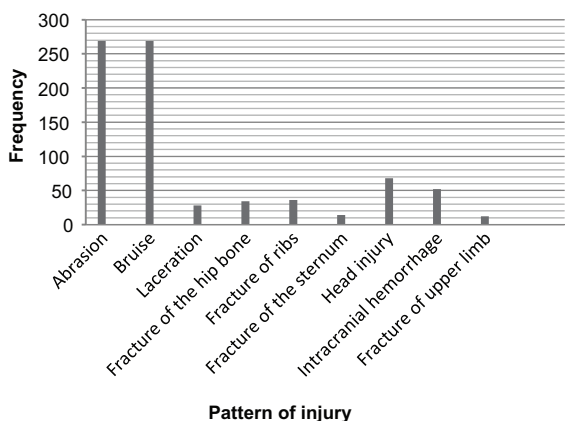
Fig. 2: *Distribution of injury patterns of the victims of RTA*

Figure 3: Shows the common types of vehicles involved in RTA were truck 62(23%), bus 56 (20.8 %) , motorcycle 45(16.7%) and private cars 30 (11.1 %).
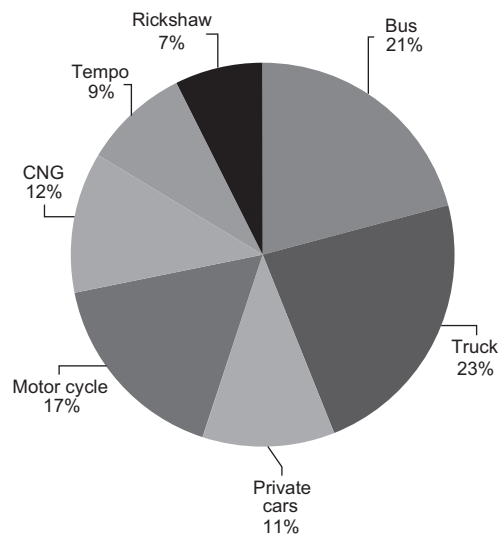
Fig. 3: *Distribution of vehicles causing the injury (N=269)*

Discussion:

There has been an alarming rise of traffic fatalities in Bangladesh over recent years. According to a World Health Organization report, globally RTA causes1.3 million deaths per year.[8] A similar statistics in Sri Lanka stated that globally, about 1.25 million people died each year as a result of traffic acidents.[9] In Bangladesh, traffic accidents are major cause of hospital admissions at primary and secondary facilities.[10] According to WHO, the economic cost of RTA to developing country is 2-3% of Gross Domestic Product(GDP) .[11] Distribution of RTA is generally influenced by socioeconomic factors. According to UNICEF, roughly 38,000 children become orphans every year because of road fatalities.[12] Within underdeveloped countries, poor people- represented by pedestrians, passengers in buses and trucks, and cyclists suffer a higher burden of morbidity and mortality from traffic injuries.[13] In this study, the common types of vehicles involved in RTA were trucks 62(23%), motorcycles 45(16.7%), private cars 30 (11.1%) and buses 56 (20.8%).These results are similar with study of Karim M et al(2011)[14] from Bangladesh, where 21.8% of the accidents were caused by trucks and motorcycles, cars and buses were the second leading vehicles to cause the accidents (14.5% and 12.7% respectively).In this study, the number of road traffic deaths were highest in June and August in 2018 and 2019 .These high death rates occurred during the two Eid holidays. The study showed that among the victims, 207(77%) were male and 62 (23%)

were female. These results are in agreement with the study of Karim M et al(2011)[14] where 47% victims of RTA were male and only 8% were female. This is probably because men in Bangladesh have more exposure and movement on the road due to their work, business, jobs or studies, whereas females are often restricted to their homes and other responsibilities for handling household chores. In our study, we found that the victim's age range was 5-71.5 years. The majority of victims 92 (34.2%) were between age groups of 31.5 to 41 years. Our finding differ from the findings observed by ASMJ Chowdhury et al (2012)[15], where the age range of 21-30 years (42.86%) representing the most likely victims of RTA deaths. In our study, considering the patterns of injury, all victims had multiple abrasions and bruises 269 (100%). Various injuries were noticed which consist of head injury 68(25.2%), intracranial haemorrhage 52 (19.3%), fractures of ribs 36 (13.3%), fracture of hip bone 34(12.6%). Similar findings were observed by Chowdhury ASMJ et.al (2012)[15] where they found that 56 (100%) victims had multiple abrasions and bruises, common injuries consisted of head injury 21(44.68%) and pelvic fractures present in 3(6.38%) victims of RTA.

Conclusion:

Road traffic accident has major impact on the economy of the country. RTA is responsible for 1-2% loss in GDP in the country and irreversible tragedy for victim's family with loss of life and property. Therefore, this issue is to be highlighted than neglected. Sincere efforts should be taken by Bangladesh Road Transport Authority (BRTA) regarding the fitness of all vehicles and renewal of license of drivers in order to reduce the unwanted deaths. Compensation for the faulty drivers should be high and punishments should be ensured by the department of Roads and Highways. This will increase awareness among road users and thus help to reduce the incidence of disability and deaths due to RTA in near future.

Conflict of interest:
Nil

Ethical clearance:
As taken necessarily

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Nurses' Knowledge about Essential Newborn Care in Nongovernment Hospital, Chattagram

Sharmin T[1], KhanTH[2], Hoque MO[3], Anne RT[4], Chowdhury MSA[5], Rahman MS[6]

Abstract:

Introduction: *Knowledge of essential newborn care is important for the survival, growth, and development of a newborn. In spite of its essentiality, most health-care professionals do not know and follow the World Health Organization recommendation.*

Objectives: *The present study was conducted to assess the knowledge of nurses about essential newborn care.*

Materials and Methods: *This observational study was conducted at Special Care Neonatal Unit (SCANU) of NonGovt. Hospital (Chattagram Maa- O- Shishu Hospital and Bangabandhu memorial hospital, USTC) in Chattagram for a period of 6 months. Data were collected from 50 nurses working in SCANU during the study period by structured questionnaire.*

Results: *More than a half (52.0%) of the nurses belonged to age 21-30 years, 48(96.0%) were female, 25(50.0%) Muslim, 33(66.0%) married, 32(64.0%) had completed diploma in nursing and midwife education and 28(56.0%) attending special courses/training in neonatology. The average adequate knowledge was 15.50±2.12 in male and 16.03±1.43 in female. The average adequate knowledge was 16.03±1.38 in married and 16.0±1.61 in unmarried. The mean accurate knowledge was 16.11±1.07 in respondents who completed diploma in nursing, 16.18±1.35 in completed diploma in nursing and midwife, 15.28±1.91 in completed B.Sc in nursing and 15.69±1.75 in completed others education. The average adequate knowledge was 16.21±1.5 in attending special courses/training in neonatology and 15.84±1.41 in without attending special courses/training in neonatology.*

Conclusion: *Most of the nurses had adequate knowledge regarding essential newborn care. The average accurate knowledge regarding essential newborn care were almost similar with age, gender, religion, marital status, educational level and attending special courses/training in neonatology.*

Key words: *Knowledge, Essential newborn care, SCANU*

(MH Samorita Med Coll J 2021; 4(1): 18-23)

Introduction:

New born care is essential to reduce neonatal mortality and proper development of a baby. Essential newborn care (ENC) is a comprehensive strategy designed to improve the health of newborns through interventions before delivery, during pregnancy and soon after birth, and in the postnatal period. Neonatal deaths take place without any skilled care.[1] Neonatal mortality now accounts for approximately two thirds of all infant mortality.[2] The current neonatal mortality rate (NMR) in Bangladesh is 23 per 1000 live births.[3] Neonatal sepsis, birth asphyxia, prematurity and low birth weight are major causes of death within this period.[4] Interventions combining resuscitation of newborn baby, breastfeeding, prevention of infection and

1. *Tasnuva Sharmin, Jr. Consultant, Department of Pediatrics, Dhaka Medical College and Hospital, Dhaka.
2. Tafazzal Hossain Khan, Professor, Department of Neonatology, Mymensing Medical College and Hospital, Mymensing.
3. Md. Obidul Hoque, Medical Officer, Fellow, Department of Retina, National Institute of Ophthalmology and Hospital, Sher-e-bangla Nagar, Dhaka.
4. Rifat Taher Anne, Jr. Consultant, Department of Pediatrics, Kurmitola General Hospital, Dhaka
5. Mohammad Shafiqul Alam Chowdhury, Assistant Professor, Department of Pediatrics, Dhaka Medical College and Hospital, Dhaka
6. Md. Shaidur Rahman, Registrar, Department of Pediatrics, Dhaka Medical College and Hospital, Dhaka

Address of Correspondence: Tasnuva Sharmin, Jr. Consultant Department of Pediatrics, DMCH. Flat- 20-A-7, Concord Twin Tower, Santinagar, Dhaka. Mobile: 01716741839, E-mail: tasnuvasharmin1983@gmail.com

management of hypothermia with Kangaroo mother care (KMC) can reduce neonatal mortality rate (NMR) by more than half.[5] Although childhood & infant mortality in South Asia has reduced substantially during last decade but neonatal mortality rate is still high.[6]

Essential newborn care (ENC) is designed to improve health of newborns through a minimum set of interaction that should be made available for all births.[7,8] Essential newborn care is based on simple principles of prevention of infection, thermal protection, resuscitation of newborn with asphyxia, early and exclusive breast feeding, care of low birth weight babies and identification and appropriate referral of sick neonates.[9,10]

In a Special care neonatal unit (SCANU) where improved service facilities are available, neonatal morbidity and mortality is not less. Being the primary contact personnel, knowledge regarding newborn care could have direct impact on neonatal morbidity and mortality. Nurses with good knowledge about newborn care can easily play an important role in promoting healthy newborn care practices. They are required to keep pace with rapid changes in health care and provide quality of patient's care in a cost effective manner.[11] Nurses never realize the exact quality of care they offer until it is being assessed.

Therefore, this study aimed to find out the baseline knowledge of nurses about general care of newborn, initiation and establishment of breast feeding, asepsis and immunization as like as Gov. organization. Non-Gov organization play important role to reduce neonatal morbidity and mortality. So emphasis should be given to Non-Gov organizations by conducting study in NGO.

Materials and Methods:

It was an observational study conducted at the special Care Neonatal Unit (SCANU) of two Non-Government Medical College Hospitals in Chattagram city named Chattagram Maa- O- Shishu Hospital and Bangabandhu Memorial Hospital, University of Science & Technology Chattagram (USTC) from December 2015 to May 2016. Consent

and permission from the institutional ethical committee was taken. Sample size was 50.

Inclusion criteria:

1. Nurses who worked in SCANU for at least 1 month period.

2. Nurses who gave consent to participate in the study.

Exclusion criteria:

1. Nurses who were working in wards other than SCANU.

A structured questionnaire was predesigned to collect data as a research instrument. A written informed consent was taken from nurses   before taking interview. Nurses working in SCANU were selected as sample who answered 18 multiple choice questions. Questions were related to knowledge regarding component of ENC. Face to face interview was taken by researcher herself.

Knowledge regarding ENC among the nurses were graded as adequate or not. When participants gave right answer it was graded as adequate knowledge.

Data were analyzed using Statistical Package for the Social Sciences (SPSS) version 20.0 for windows. Descriptive statistics computed for demographic variables. ANOVA tests were performed to determine the Mean distribution of accurate knowledge regarding essential newborn care according to different nurse's age, religion and educational status. Unpaired t-tests were also performed to identify the Mean distribution of adequate knowledge regarding essential newborn care according to different nurse's gender and marital status. P value <0.05 was considered as significant. For quality assurance professional assistance from a statistician was taken.

Results:

This study observed that among 50 nurses more than half (52.0%) nurses belonged to age 21-30 years. Majority (96.0%) were female, 25(50.0%) were Muslim, 33(66.0%) were married, (64.0%) had completed diploma in nursing and midwife

education and 28(56.0%) were attending special courses/training in neonatology. The mean accurate knowledge regarding essential newborn care was not significantly (p>0.05) associated with age, gender, religion, marital status, educational status, and attending any special training (Table 1). Table 2 shows the knowledge of nurses about essential newborn care.

Table 1: Mean distribution of accurate knowledge regarding essential newborn care according to nurse's demographic profile

Demographic Profile	Frequency	%	Knowledge				P value
Age (in years)			Mean	±SD	Min	Max	
≤20	03	6.0	15.83	±2.14	14	19	0.798[ns]
21-30	26	52.0	15.84	±1.51	12	18	
31-40	15	30.0	16.3	±1.33	15	19	
>40	06	12.0	15.92	±1.08	13	18	
Gender							
Male	2	4.O	15.50	±2.12	14	17	0.614[ns]
Female	48	96.0	16.03	±1.43	12	18	
Marital status							
Married	33	66.0	16.03	±1.38	13	18	0.945[ns]
Unmarried	17	34	16.0	±1.61	12	18	
Religion							
Islam	25	50.0	16.82	±1.71	12	18	
Hinduism	16	32.0	16.24	±1.23	14	18	0.522[ns]
Buddhism	06	12.0	16.20	±1.01	14	18	
Christianity	03	6.0	16.0	±0.82	16	17	
Educational status							
Diploma in nursing	05	10.0	16.11	±1.07	14	17	
Diploma in nursing and midwife	32	64.0	16.18	±1.35	13	18	0.487[ns]
B. Sc in nursing	07	14.0	15.28	±1.91	12	18	
Others (No recognized qualification)	06	12.0	15.69	±1.75	13	18	
Special training in neonatology							
Yes 28	56.0	16.21	±1.5	12	18	0.378[ns]	
No 22	44.0	15.84	±1.41	13	18		

Table 2: Distribution of knowledge concerning essential newborn care among the participating nurses

Knowledge about Essential Newborn Care		Number of nurses	Percentage
General concept of ENC	Knows about ENC	48	96.0
	Do not know about ENC	2	4.0
Delivery room facilities	Well lighted, well ventilated and clean	48	96.0
	No special setting	02	4.0
Sanitization techniques	Wash with soap water	22	44.0
	Wash with other disinfectant solution	28	56.0
Time of initiating spontaneous breathing in newborn	Immediately after birth	46	92.0
	Few minutes after birth	04	8.0
Care of babies who spontaneously breath after birth	Put the baby with his/her mother	48	96.0
	Put baby in the incubator	02	4.0
Care of babies who do not spontaneously breath after birth	Resuscitate the baby	44	88.0
	Slapping the back	04	8.0
	Hanging upside down	02	4.0
Knowledge about resuscitation	Tactile stimulation (flickering of sole/back rubbing)	10	20.0
	Suction	15	30.0
	Mouth to mouth breathing	05	10.0
	Use bag and mask ventilation	20	40.0
Care after establishment of spontaneous breathing	Dry & wrap the baby with dry cloth	50	100.0
	Bath the baby	0	0.0
Care of umbilical cord after delivery	Use Chlorhexidine (7.1%) for once and keep it dry	44	88.0
	Daily clean the umbilical cord by antiseptic wash	05	10.0
	Give antibiotic ointment and bandage over it	01	2.0
Time of initiation of breast feeding	Within 1st hour of delivery	49	98.0
	More than 6 hour	01	2.0
Advise for insufficient breast milk	Give formula milk	1	2.0
	Pre- lacteal feed (honey, water)	1	2.0
	Continue with breast feeding even when milk is not coming	48	96.0
Duration of exclusive breast feeding	6 months	46	92.0
	More than 6 months	04	8.0
Care of eye for newborn	Clean eye with normal saline	46	92.0
	Apply nothing	04	8.0
Initiation of immunization according to EPI schedule	At birth	09	18.0
	6 Weeks	41	82.0
Early identification of a sick newborn	Baby is unable to take breast feed and lethargic	48	96.0
	Baby is playful	02	4.0
Knowledge about weight of a low birth weight baby	<3000 grams (3 kg)	01	2.0
	<2500 grams (2.5 kg)	38	76.0
	<1500 grams (1.5 kg)	11	22.0
Knowledge about maintaining temperature of LBW newborn	Baby in water of appropriate temperature	1	2.0
	Put on cloths and cover head and put the baby to mother	45	90.0
	Room temperature of 28-30 degrees Celsius	04	8.0
Knowledge about giving special care for low birth weight newborn	Skin to skin contact (Kangaroo mother care)	06	12.0
	Breast feed early & frequently	02	4.0
	Care for infection prevention	00	0.00
	All the above (Skin to skin contact, breast feed early & frequently and care for infection prevention)	42	84.0

Discussion :

In the present study majority (52.0%) of nurses belonged to age 21-30 years with mean age 26 ± 2 years where as Sayed et al.[12] found that, nearly two third (60%) of the nurses were 30 to less than 40 years old, with mean age of 31 ± 6 years. In this present study it was observed that majority (96.0%) nurses were female, 50.0% nurses were Muslim, and 66.0% nurses were married. Sayed et al.[12] observed that most of the nurses (85.7%) were married.

In this study, regarding the knowledge of nurses about essential newborn care, 28(56.0%) washed their hands with disinfectant solution before handling the baby, all the nurses 50 (100.0%) mentioned that the baby should be cleaned and warmed with dry cloth, 49(98.0%) mentioned that the baby must be breast feeding within 1st hour of delivery, 46(92.0%) had accurate knowledge about duration of EBF, 45(90.0%) said about stabilizing the temperature of LBW baby put on cloths, cover head and put the baby to mother and 42(84.0%) were aware of giving extra care to low birth weight baby by skin to skin contact (Kangaroo mother care), breast feed early & frequently and care for infection prevention.

On the other hand a study conducted in Ethiopia found13.6% nurses washed their hand before all deliveries they conducted but 48.9% did not wash at all ,86.0% of participants were aware of the time of breast feeding initiation and 77.2% knew duration of exclusive breast feeding, greater than 62.1% kept the baby skin to skin contact with the mother.[13]

A study in India revealed that, 89% of the providers demonstrated wiping of newborn with dry cloth, 63% showed putting neonate on warm surface.[14]

In this study, the average correct knowledge was 16.03±1.38 in married and 16.0±1.61 in unmarried. The mean accurate knowledge regarding essential newborn care was not significantly (p>0.05) associated with marital status in this study. Rahman et al.[15] found the knowledge of health and family planning field workers is lowest among teen married women and newly-weds. Regarding the association between attending special courses/training in neonatology with knowledge about essential newborn care, the average correct knowledge was 16.21±1.5 in attending special courses/training in neonatology and 15.84±1.41 in without attending special courses/training in neonatology. The mean accurate knowledge regarding essential newborn care was not significantly (p>0.05) associated with attending special courses/training in neonatology in this study. Sayed et al.[12] mentioned that education and training are potential means for implementing effective nursing care at Neonatal Intensive Care Unit (NICU), as they alter perception, increase knowledge, and in turn change work practice. Their study revealed that about two third of nurses' knowledge was incompetent about neonates in intensive care unit.

Conclusion:

Majority of the nurses had adequate knowledge regarding essential new born care. Knowledge regarding essential new born care among nurses were almost similar with age, gender, religion, marital status, educational level and attending special courses/training in neonatology. The results might help for policy planning to train up the nurses, midwives and skilled birth attendant (SBA). Further large scale, multicenter study should be performed to validate this study.

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Unmet Need of Mental Health Problems in Bangladesh: A Review

Sumi TA [1], Alam MU[2], Badhon NM[3]

Abstract:

Mental health is a significant factor for a sound and productive life; nevertheless, mental disorders do not often receive adequate research attention and are not addressed as a serious public health issue in countries such as Bangladesh. The current review describes the current situation of mental health in Bangladesh in its wider sociocultural context, outlining existing policies and highlighting the unmet need of mental illness as a neglected healthcare problem in the country using a narrative synthesis method. The prevalence of mental disorders is very high and augmented in nature among different population groups in Bangladesh. A lack of public mental health facilities, scarcity of skilled mental health professionals, insufficient financial resource distribution, inadequately stewarded mental health policies and stigma contribute to making current mental healthcare significantly inadequate in Bangladesh and also portray the feature why the need has been unmet yet. The country has few community care facilities for psychiatric patients. Furthermore, the current mental health expenditure by the Bangladeshi government is only 0.44% of the total health budget. Less than 0.11% of the population has access to free essential psychotropic medications.

Key words: *Mental health, Unmet need*

Introduction:

Bangladesh, a lower middle-income country in South Asia, has a population of 163 million, making it the world's eighth most populous country[1]. Two-thirds of the population resides in rural areas. Literacy rates are estimated at 75.62% for males and 69.90% for females, with only 4 hospital beds per 10 000 people.[2] Bangladesh faces an immense burden of illness arising from both communicable and non-communicable diseases, including mental disorders. Mental healthcare in Bangladesh is enormously inadequate owing to a lack of public mental health facilities, scarcity of skilled mental health professionals, insufficient financial resource distribution and societal stigma. Unmet need is the demand which has not been satisfied [2].An unmet mental health need exists when someone has a mental health problem but doesn't receive formal care or person doesn't seek any help for his problems.There is immense of discomfort and non-cooperation from the people and their family as well and people are stigmatized in society where community create barriers and make issues.[3]At a global level the largest disease burden in 2020 comes from cardiovascular diseases which account for rank one with 15% of the total.Global burden of disease comes from 13% due to mental disorders with rank two.It will increase 15 % by the end of year 2030 .By 2030 depressive disorder will rank one of the total disease burden.According to first nationwide survey conducted in 2002-2004, 16.1% adult had mental health disorder.In a recent nationwide representative survey 2018 in Bangladesh-18.7% of adults suffering from mental health issues,16.8% men and 17 % women were affected and 92.3% do not seek medical attention. 13.6% of children aged between 7 to 17

1. *Dr. TaslimaAkter Sumi, Associate Professor, D/O Community Medicine, M H Samorita Hospital & Medical College
2. Prof. Dr. Masroor Ul Alam, Professor & Head, D/O Community Medicine, M H Samorita Hospital & Medical College
3. Dr. Nazia Mahmud Badhon, Associate Professor, D/O Pharmacology, M H Samorita Hospital & Medical College

Address of Correspondence: Dr. TaslimaAkter Sumi, Associate Professor, Department of Community Medicine, MH Samorita Medical College & Hospital, 127, Love road, Tejgaon, Dhaka, Bangladesh, Tel: +88-01712001829, 01676408645, Email Address: tasumi012@gmail.com

years suffers from mental health disorders. In rural areas (16.2%) people suffer less mental disorder than urban (18.7%) area.[3]

Factors that contribute to Mental Illness: Some mental illnesses have been linked to abnormal functioning of nerve cell circuits or pathways that connect particular brain regions. Nerve cells within these brain circuits communicate through chemicals called neurotransmitters. "Tweaking" these chemicals through medicines, psychotherapy or other medical procedures can help brain circuits run more efficiently. In addition, defects in or injury to certain areas of the brain have also been linked to some mental conditions.[4]Other biological factors that may be involved in the development of mental illness include:

Genetics (heredity): Mental illnesses sometimes run in families, suggesting that people who have a family member with a mental illness may be somewhat more likely to develop one themselves. Susceptibility is passed on in families through genes. Experts believe many mental illnesses are linked to abnormalities in many genes rather than just one or a few and that how these genes interact with the environment is unique for every person (even identical twins). That is why a person inherits a susceptibility to a mental illness and doesn't necessarily develop the illness. Mental illness itself occurs from the interaction of multiple genes and other factors such as stress, abuse, or a traumatic event - which can influence, or trigger, an illness in a person who has an inherited susceptibility to it.[4]

Infections: Certain infections have been linked to brain damage and the development of mental illness or the worsening of its symptoms. For example, a condition known as pediatric autoimmune neuropsychiatric disorder (PANDAS) associated with the Streptococcus bacteria has been linked to the development of obsessive-compulsive disorder and other mental illnesses in children[3].

Brain defects or injury: Defects in or injury to certain areas of the brain have also been linked to some mental illnesses.

Prenatal damage: Some evidence suggests that a disruption of early fetal brain development or trauma that occurs at the time of birth , for example, deficiency of oxygen in the brain ,may be a factor in the development of certain conditions, such as autism spectrum disorder.

Substance abuse: Long-term substance abuse, in particular, has been linked to anxiety, depression, and paranoia.

Other factors: Poor nutrition and exposure to toxins, such as lead, may play a role in the development of mental illnesses.

Psychological factors that may contribute to mental illness include: Childhood trauma, such as emotional, physical, or sexual abuse, an important early loss- such as the loss of a parent, neglect, poor ability to relate to others.

Environmental Factors Contributing to Mental Illness: Certain stressors can trigger an illness in a person who is susceptible to mental illness. These stressors include:

• Death of a loved person.

• Family discard, widow, divorced

• Changing jobs, schools, home, life partners.

• Social or cultural expectations for example, a family or a society that associates beauty with thinness can be a factor in the development of eating disorders.

• Availability of drugs, family history of drug abuse.

Factors associated with unmet mental health need:-

Socio-demographic determinants and disorder characteristics associated with UMHNs

Poverty. Non-reimbursed psychotherapy is too expensive, while waiting times in reimbursed services are long. Professionals state that poverty hinders help-seeking because mental health needs are subordinate to basic needs such as housing and food. Difficulties were mentioned distinguishing mental health needs from rather social needs.

Ethnic minority background were seen as a hard-to-reach group for mental health care. Cultural differences in taboo and stigma and a lack of trust in professional care were identified as hindering factors for help-seeking in this group. People with a non-western background often present with indistinct physical complaints which are actually caused by underlying mental distress. Also language plays a major role. Several professionals expressed

difficulties working with interpreters, and not speaking one of the national languages is often an exclusion criterion in mental health care.

Complex care needs. Patients with co-occurring mental or substance use disorders, or in whom a severe mental disorder is accompanied by problems in multiple domains, were found difficult to get into treatment. They do often not fit the right criteria, and some tend to be excluded due to their externalizing behavior. There is also a subgroup with complex needs who were pejoratively called 'revolving door patients' or 'frequent flyers' because they're often re-admitted to psychiatric wards or crisis units[3].Long-term care needs increase the risk of UMHNs, professionals argued. Patients suffering from major mental disorders require long-term or even lifelong care. Such care needs are currently often unmet due to a capacity problem. Patient flow ceases due to limited outflow, causing saturated long-term care services.[3]

Children and youth: Generational problems are common, such that over parenting situations lead to behavioral and emotional disorders in children. As regards youth, professionals noticed a gap in transition age. Protection of minors abruptly stops at the age of 18 and many vulnerable young people struggle with finding their place in society.[3]

Current context and vulnerable groups

First national survey on mental health in Bangladesh was conducted in 2002–2004. The second nationwide representative survey was conducted in 2018.

A systematic review of literature on children in Bangladesh from 1998 to 2004 found prevalence estimates of mental disorders between 13.4 and 22.9%. Community- based surveys in 2004 and 2009 report prevalence estimates in line with those of past decades. The most recent figures were obtained from the 2018 nationwide representative survey, and report a lower prevalence for girls than boys.[5]

Other child and adolescent groups: A systematic review estimated the prevalence of autism spectrum disorders as between 0.2 and 0.8% in Bangladesh.One study (2013) reported that 25% of adolescents in urban schools experienced depressive symptoms (girls: 30%, boys: 19%). A 2018 study among adolescents in urban and semi-urban schools found that 36.6% suffered from depressive symptoms (girls: 42.9%, boys: 25.7%).A similar prevalence of depression (38.9%) was reported among Bangladeshi medical students in 2013. Another study (2019) among university students reported a 22.5% increase in the prevalence of depression (meeting provisional diagnostic criteria) and a 27.1% increase in the prevalence of anxiety within a 15-month period[5].

Mental health care services and systems: were implemented with relative success by the government of Bangladesh to address the humanitarian crisis at Cox's Bazar related to Myanmar Rohingas. However, this program has yet to be scaled up to the rest of the nation. Although antipsychotics, anxiolytics, antidepressants, mood stabilizers and anti-epileptic drugs are included in the list of essential medicines recommended by the WHO, psychotropic drugs are not widely available in Bangladesh. A good number of patients visiting the government healthcare facilities don't have access to these psychotropic medications. Despite the well-structured three-tier healthcare delivery system in Bangladesh, a lack of qualified mental healthcare professionals and limited logistical support lead to a discrepancy in meeting the mental healthcare needs of the population. Studies have highlighted low levels of help-seeking as well as poor service delivery for mental health conditions in Bangladesh. Referrals of patients with mental illness to mental health specialists by primary care physicians or other healthcare providers are near non-existent. Superstitious beliefs regarding the causation of psychiatric disorders prevent help-seeking from mental health services. Psychiatric disorders, including psychotic disorders, are commonly perceived as being triggered by supernatural influences, with the cure often sought from traditional healers. These practices show no benefit for psychotic illness and are a wasteful economic cost to the majority low-income population. Some practices may also be physically and psychologically harmful, further complicating prognosis[6].

Human resources for mental healthcare: Very few healthcare workers in Bangladesh are trained in providing mental health services (0.49%), and there are even fewer psychiatrists (0.16 per 100,000 populations). The majority of these professionals work in the urban areas of the country, namely the capital city of Dhaka. Types of mental healthcare

providers in Bangladesh include psychiatrists, psychiatric nurses, psychologists, social workers, occupational therapists and general mental health workers. Approximately half the psychiatrists (54%) in Bangladesh work in government mental health facilities or private sector clinics; 46% work for NGOs, non-profit mental health facilities or in private practice. Psychiatrists working in government facilities are allowed to concurrently work in the private sector as well. Around 62% of psychosocial professionals, including clinical psychologists, social workers, nurses and occupational therapists, work for government-administered mental health facilities, 26% work for NGOs or in private practice, and 12% work for both the public and the private sectors. The distribution of human resources between urban and rural areas is grossly disproportionate, with a heavy concentration in urban areas. The density of psychiatrists and psychiatric nurses in or around the largest city, the capital Dhaka is five times greater than the density of these professionals in the rest of the country. Bangladesh's available workforce in mental healthcare is scarce and skewed in distribution, an immense barrier to improving mental healthcare in the country[6].

Financing of mental health services: Mental health expenditures by the Bangladeshi government are 0.44% of the total health budget. Of all the expenditure on mental health, 67% is dedicated to mental hospitals. Less than 0.11% of the populations have access to free essential psychotropic medications. A daily out-of-pocket expense for the lowest-priced antipsychotic and antidepressant medication is 5.00 taka (US$ 0.07) and 3.00 taka (US$ 0.04) respectively. Health insurance is a rarity and in any case, typically does not cover drugs for mental illness[7].

Barriers to combat mental health problems: Insufficient Human resources: Types of mental healthcare providers in Bangladesh include:-psychiatrists, nurses, psychologists, social workers, occupational therapists and general mental health workers.[8] 0.49% psychiatrists (260) (0.16 per 100,000 population), Clinical psychologist 565(0.34 per 100000), Psychiatric nurses 700(0.43 per 100000),62% of psychosocial professionals work for government-administered mental health facilities, 26% work for NGOs or in 'private practice'.[9] **Stigma related to**

mental health: There is significant social stigma and beliefs in Bangladesh attached to mental illness that has severe influence on the health seeking behavior of people suffering from psychosocial or other mental illness. Some people believe that when an individual suffer from any mental illness that has been caused by sins of their parents[10].

Examples of some other Social stigma are - denial (do not see the need for treatment), minimization (considering less important things), depression are often stereotyped as laziness ,anxiety as cowardly. Many people fear being labeled as "crazy". Social stigma prevents mentally ill person from seeking care and makes them silently suffer from social isolation and discrimination. There are lack of medical services in rural and remote settings and also gap in knowledge about mental health, so they try to solve their problems by traditional healers and religious leader[11].

Inadequate Education and Awareness: Misconception about the symptoms oriented to mental health problems. No facilities of group or personal discussion on mental health issues in community level, mental health issues are not included in school textbooks , no education on emergency care and first aid care for mental health patients.[11] **Other barriers are physicians** of primary health care are not well trained , Physical problems has more emphasis over mental health problems, gender discrimination in families, Poor socio-economic condition, Hospital bed services are not adequate, no rehabilitation facilities, Community treatment approach is not adequate .[12]

Conclusion:

The prevalence of mental disorders in Bangladesh is very high, and treatment is neglected, especially among marginalized populations. A lack of public mental health facilities, scarcity of skilled mental health professionals, insufficient financial resource distribution and stigma contribute to the barriers to accessing mental healthcare in Bangladesh. At a macro level, lack of healthcare expenditure by the Bangladeshi government, poor advocacy and limited research further exacerbate the problem. It is suggested that priorities should be given for improving the nation's mental health.

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Case Reports

Orbital Cellulitis: A Case Report

Kawsar U[1], Rahman S[2], Moniruzzaman M[3], Jahan NA[4], Hossain MS[5], Quadir MS[6]

Abstract

Orbital cellulitis is a serious infection of the ocular soft tissue posterior to the orbital septum. It has a both sight and life threatening consequence. Orbital cellulitis has many underlying causes of which acute exacerbation of chronic dacryocystitis is one. If the condition would have been diagnosed and managed in time, this grave condition would have been avoided. A female person of 19 years of age presented with severe pain and huge swelling of left eye for 1 day. She had history of discharge and watering in left eye for 7 months. Patient was admitted in the hospital immediately and started treatment. Her CT brain and orbit showed evidence of orbital cellulitis.

Key Words: Cellulitis, Orbital.

Introduction:

Orbital cellulitis is an infectious condition where the soft tissues posterior to the orbital septum are affected mainly via staphylococcus aureus, streptococcus pyogenes and haemophilus influenzae. In developing countries, this condition is often seen in ophthalmology clinics. Infection typically arises from the untreated cases of Dacryocystitis, paranasal sinuses (especially ethmoid), or from preseptal cellulitis, dental infection, trauma, septicaemia or after ocular surgery. When it involves cavernous sinus, it becomes life threatening. The aim of this report is to present a case about orbital cellulitis with acute exacerbation of chronic dacryocystitis and how to approach such a patient.

Case report:

A female patient, 19 years age came from urban background presented to the outpatient ophthalmology corner in MHSHMC with the complaints of pain and swelling of left eye for 1 day. She had a history of watering and intermittent discharge from left eye for last 7 months. She had multiple consultations with ophthalmologist for the watering and discharge and was advised to undergo surgery but she didn't follow.

According to the patient's statement, she was well 1day back. Then, she developed pain and swelling in left eye. On ophthalmic examination of left eye, on 6.11.18, her visual acuity and colour vision can't be assessed due to huge swelling. Lids were firm, tender, warm and erythematous. Pain exacerbates with ocular movement. Patient was non diabatic and non hypertensive. She is using contraception (injectable) for 1 and 1/2 year. She gave no history of fever but noticed pain on ocular movement. Right eye showed no abnormality. On general examination, patient was well oriented. Her vital signs were within normal limits. Other systemic examinations revealed no abnormality.

1.* Dr.Ummay Kawsar, Associate Professor, Dept. of Ophthalmology, MHSHMC.

2. Dr.Siddiqur Rahman, Consultant of Ophthalmology in vision eye hospital.

3. Dr. Mohammad Moniruzzaman, Consultant of Ophthalmology in vision eye hospital.

4. Prof. Dr.Nahida Akhter Jahan, Prof. & Head, Dept. of Microbiology, MHSHMC.

5. Dr.Md.Somir Hossain, Registrar and Consultant, Dept. of Ophthalmology, MHSHMC.

6. Prof. Dr. Md. Sabbir Quadir, Prof. & Head, Dept. of Ophthalmology, MHSHMC.

***Address of Correspondence:** Dr.Ummay Kawsar, Associate Professor, Dept. of Ophthalmology, MHSHMC, Mobile: 01556329646, Email: drummaykawsar@gmail.com

Fig. 1: *Orbital cellulitis (Left eye)*

Fig. 2: *CT scan of brain & orbit showing evidence of orbital cellulitis on left side.*

Provisional diagnosis was, left sided orbital cellulitis due to acute exacerbation of chronic dacryocystitis. Patient was admitted in the hospital immediately and treatment started on the same day with antibiotics and other supportive drugs.

Laboratory Investigations sent for

• Blood for CBC and culture

• FBS

• Blood sugar 2HABF

• S.creatinine

• X-ray nose with paranasal sinus

• CT-scan of brain, orbit and sinuses

CBC Shows neutrophilic leukocytosis, TC of WBC 17500/cu mm of blood, DC of neutrophil 76%, ESR 65mm/1st hour, S.creatinine0.9 mmol, FBS— Normal, Blood sugar 2HABF—Normal, CT-scan of brain and orbit showed evidence of orbital cellulitis on the left side, X-ray nose with paranasal sinus showed normal. Blood culture report showed no

growth. Fundoscopy done on 10.11.18 and optic nerve was normal.

Follow up conducted on 7.11.18 and found patient's condition improved to some extent. Pain and swelling subsides to some extent. Palpebral fissure height improves 2-3 mm, visual acuity is 6/6 in both eye, conjunctiva was congested, Anterior Chamber was quiet, pupil-RRR, EOM- full in all gaze.

The case was finally diagnosed as Left orbital cellulitis due to acute exacerbation of chronic dacryocystitis. Patient was discharged on 10/11/18 with antibiotic coverage, other supportive drugs and advice including surgery for chronic dacryocystitis after 6-8 weeks.

Discussion:

Dacryocystitis is an infection of the lacrimal sac due to nasolacrimal duct obstruction. Orbital cellulitis is a vision-threatening infectious process involving the ocular adnexal structures posterior to the orbital septum. Orbital cellulitis can occur secondary to chronic dacryocystitis and typically responds well to systemic antibiotic and surgical drainage without permanent visual loss[1]. The attachment of orbital septum to the lacrimal crest prevents the spread of infection to the posterior orbit. In addition, other anatomical structures such as the lacrimal fascia, the posterior limb of the medial canthal ligament, and deep heads of the pre-tarsal and pre-septal orbicularis muscles also act as a barrier to posterior extension. Orbital abscess secondary to chronic dacryocystitis generally occurs in the medial and inferior aspects of the globe because of the anteroinferior location of the lacrimal sac. The anterior and inferior location of the lacrimal sac in relation to the globe can result in a channel of communication between the medial and inferior rectus muscles directly to the intraconal space, which can result in rapid loss of vision necessitating urgent surgical intervention.

It was found in one study[2] that, prior episode of dacryocystitis is a risk factor for orbital extension by distension of the lacrimal sac and disruption of its posterior barriers. These barriers weaken from distension increasing the likelihood of posterior rupture and spread. Although our patient had history of dacryocystitis, chronic distention of the lacrimal sac may have led to posterior rupture and orbital extension. Other theories included spread of infection to ethmoid sinus via lamina papyracea, with subsequent extension from the sinus to the orbit[3]. Other causes include hematogenous spread from other systemic causes and

in some cases a primary orbital cellulitis that can extend into the lacrimal sac before the presence of dacryocystitis. Immunosuppression can also be a contributing factor[4].

The microorganisms found in dacryocystitis-induced orbital cellulitis are similar to the microorganisms found in uncomplicated dacryocystitis[5]. Intraoperative cultures revealed that gram-positive bacteria are the most common pathogens[6]. The most frequently isolated microorganisms are Staphylococcus species (*staphylococcus aureus* and coagulase-negative staphylococcus) and streptococcus species[7,8]. These microorganisms are also found in paranasal sinus infections[9]. The mechanism of vision loss is thought to be due to optic nerve compression and ischemia or elevation of intraocular pressure by the mass effect of the abscess, which results in central retinal artery obstruction or ophthalmic artery obstruction.

A delay in treatment can result in serious complications like vision loss, cavernous sinus thrombosis, meningitis, frontal abscess, and even death [10,11,12]. If an abscess is present, incision and drainage to prevent rupture of the lacrimal sac and posterior extension into the orbit is highly recommended, with dacryocystorhinostomy being the definitive treatment[13].

Conclusion:

Chronic dacryocystitis is a major cause of orbital cellulitis. Patients with orbital cellulitis and/or orbital abscess should be questioned about symptoms of lacrimal drainage obstruction. It is recommended that patients with chronic dacryocystitis should be carefully monitored with regular routine followup and should be advised to undergo surgery, otherwise it can rapidly progress causing irreversible vision loss, even death.

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Coronary Intervention in the Left Main Coronary Artery associated ST-Elevation Myocardial Infarction and Cardiogenic Shock

Iqbal SMM[1], Dhar R[2]

Abstract:

The left main coronary artery (LMCA) associated ST-elevation myocardial infarction is associated with high morbidity and mortality. Older age, heart failure and cardiogenic shock are predictors for in-hospital mortality. Here, we present a case of a 58-year-old woman who presented with STEMI (Antero septal) complicated by heart failure and cardiogenic shock and was successfully treated by stenting to left main and right coronary artery.

Key Words: Left Main Coronary Artery Disease, ST-elevation myocardial infarction

Introduction

The left main coronary artery (LMCA) associated ST-elevation myocardial infarction (STEMI) has been associated with high morbidity and mortality .The LMCA culprit lesions in acute coronary syndrome usually present with hemodynamic instability, heart failure and cardiogenicshock[1]. Older age, heart failure and cardiogenic shock are independent factors which predict in-hospital mortality [2]. Elderly people with acute myocardial infarction (AMI) commonly receive conservative treatment, although guideline suggests us to proceed to myocardial revascularization [3]. Here, we present a case of critical LMCA lesion complicated by acute left ventricular failure (LVF) and cardiogenic shock in an elderly that was treated by stenting of LMCA and right coronary artery (RCA).

Case Report

A 58-year-old lady was referred to our emergency unit with a diagnosis of STEMI, LVF and cardiogenic shock. She had risk factors like HTN and DM. The patient complained of severe chest pain at rest with shortness of breath and has been treated for 7 days at the local hospital with a diagnosis of STEMI (Anteroseptal) late presentation. However, the symptoms and signs of heart failure worsened even at day 8 of hospitalization. So she was referred to our hospital for possible revascularization.

On admission, we found cold sweaty periphery, heart rate of 110 bpm and blood pressure 80 / 60 mmHg, bilateral basal crepitations up to the mid zone of lungs and oxygen saturation of 84% in room air.

We started treatment with Oxygen, Noradrenaline, Aspirin, Ticagrelor, Low molecular weight heparin, Atorvastatin, Ivabradin, Nicorandil, Ranolazine, Frusemide, spironolactone and empiric broad spectrum antibiotics. Initial investigation showed anaemia, neutrophilic leucocytosis, hyponatraemia, renal impairment.

Echocardiogram showed Antero-Septum, apex, apical anterior and mid basal inferior wall are severely hypokinetic to akinetic, Severe mitral regurgitation and Severe LV systolic dysfunction (EF-35%).

After addressing the non cardiac issues, we went for Coronary angiography which showed :

Coronary Dominance: Right dominant.

LMCA: Distal LM 99% stenosis.

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1. *Dr. S M Mamun Iqbal , Professor, Department of Cardiology , Japan East West Medical College and Hospital, Uttara, Dhaka, Bangladesh

2. Dr. Rajib Dhar, Registrar , Department of Cardiology,Dr Sirajul IslamMedical College and Hospital, Mogbazar, Dhaka, Bangladesh

Address of Correspondence: Dr. S M Mamun Iqbal ,Professor, Department of Cardiology , Japan East West Medical College and Hospital, Uttara, Dhaka, BangladeshEmail; kironk56@yahoo.com. Cell no.: 01715498482.

Left Anterior Descending (LAD): Type IV calcified vessel normal.

Left Circumflex (LCX): 40-50% proximal segment stenosis.

Right Coronary Artery (RCA): Dominant vessel having 99% ostial stenosis.

Diagnosis: DVD with LM disease.

Recommendation: Urgent Revascularization.

Fig. 1: *Shows critical Left main Coronary artery lesion*

Fig. 2: *Shows critical Right Coronary artery ostial lesion.*

After discussing pros and cons of CABG and PCI, the patient's relatives wanted to go for PCI.

Then we went for Coronary angioplasty.
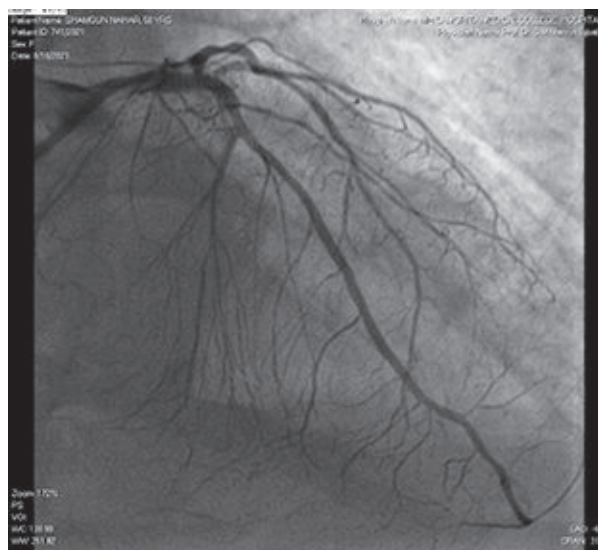

Fig. 3: *Deployment of Stent in Left Main*

Fig. 4: *Final result with no residual stenosis and good distal flow.*

Our approach was Right Trans Radial Artery.

For left main intervention, we took 6FrEBU 3.0 Guide catheter. The lesion in Left Main was crossed with 0.014'x 190cm Run-through Floppy wire and predilated with 2.5 x 15 mm NC balloon @ 12 atms for 30 secs. We deployed a 3.5 x 18 mm Drug Eluting Stent (DES) - Affinity stent @ 16 atms for 30 sec. For RCA, we took 5Fr JR 3.5 Guide catheter. The lesion in RCA was crossed with 0.014'x 190cm Run-through Floppy wire and predilated with 1.5 x 10mm NC balloon @ 14 atms for 30 secs. We deployed a 3.0 x 15 mm Drug Eluting Stent (DES) - Affinity stent @

Fig. 5: *Deployment of Stent in Right Coronary Artery*

Fig. 6: *Final result with good distal flow in RCA.*

20 atms for 30 sec. Post dilatation was done with 3.0 x 8 mm NC Quantum Apex balloon @ 16 atms for 30 secs.

There was no residual stenosis or dissection in LM & LAD and RCA.

After intervention, the hemodynamic status and heart failure of the patient gradually improved.

The patient was discharged 5days after percutaneous coronary intervention (PCI) procedure with optimal medical therapy.

Discussion:

The LMCA ST-elevation myocardial infarction is associated with high morbidity and mortality [1], mainly due to circulatory failure and malignant tachyarrhythmia [4]. These patients can present with sudden cardiac death or cardiogenic shock [5]. On the other hand, the elderly patients themselves are a negative prognostic factor of acute myocardial infarction (AMI) survival and tend to be treated more conservatively compared to the young[6].

Grygier *et al.*reported the left main occlusion in an 80-year-old woman. The patient presented with STEMI complicated by cardiogenic shock due to the left main occlusion. Then successful percutaneous intervention has been done to stabilize until bypass grafting was performed and resulted improvement of the patient[7].

We reported a case of an elderly lady diagnosed as a left main STEMI with clinical presentations of typical chest pain, left ventricular failure and cardiogenic shock. Emergency angiography was performed and revealed critical lesion in distalL MCA and ostial RCA. We had a heart team discussion and suggested coronary artery bypass grafting (CABG) for complete revascularization. But patient denied CABG and we went for PCI.Though the evidence is limited regarding IABP's benefit, it should be considered as a rescue therapy to stabilize the patient and preserve organ oxygenation [8]. We know that CABG is established as the standard management for stable distal LMCA disease, there is still debate in selecting the optimal revascularization strategy for patients with STEMI and LMCA occlusion who survived to hospitalization, and treatment guidelines in this scenario are vague. PCI is technically feasible in most patients with STEMI. It should be considered as an alternative to CABG for specific indications, including those with LMCA lesion, LVF and cardiogenic shock,as is the case in our patient [9]. For those reasons, we performed PCI to LMCA and RCA as an attempt of complete revascularization, as the recent guideline recommends it, in the case of STEMI on cardiogenic shock [10]. After stenting in distal LMCA and ostial RCA, we found an augmentation of antegrade blood flow and clinical improvement on patient symptoms and hemodynamic signs.

An aggressive approach is necessary in life-threatening conditions, even in the elderly with high procedural risks.

Conclusion:

PCI can be a safer and feasible option in an elderly patient with Left Main Coronary Artery related STEMI complicated by LVF and cardiogenic shock.

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Abstract From Current Literatures

THE ASSOCIATION BETWEEN SMOKING AND GUT MICROBIOME IN BANGLADESH

Rachel Nolan-Kenney BA[1,2], Fen Wu PhD[1,2], Jiyuan Hu PhD[1,2], Liying Yang PhD[3,4,5], Dervla Kelly PhD[6], Huilin Li PhD[1,2], Farzana Jasmine PhD[7], Muhammad G. Kibriya PhD[7], Faruque Parvez PhD[8], Ishrat Shaheen MBBS[9], Golam Sarwar MSc[9], Alauddin Ahmed MBBS[9], Mahbub Eunus MBBS[9], Tariqul Islam MBBS[10], Zhiheng Pei MD, PhD[3,4,5], Habibul Ahsan MD[7], Yu Chen PhD[1,2]

[1] Department of Population Health, New York University School of Medicine, New York, NY; [2]Department of Environmental Medicine, New York University School of Medicine, New York, NY; [3]Department of Pathology, New York University School of Medicine, New York, NY; [4] Department of Medicine, New York University School of Medicine, New York, NY; [5] The Department of Veterans Affairs New York Harbor Healthcare System, New York, NY; [6] Health Research Institute, Graduate Entry Medical School, University of Limerick, Limerick, Ireland; [7] Department of Public Health Sciences, Institute for Population and Precision Health, The University of Chicago, Chicago, IL; [8]Department of Environmental Health Sciences, Mailman School of Public Health, Columbia University, New York, NY; [9] Department of Informatics, U-Chicago Research Bangladesh, Ltd., Dhaka, Bangladesh; [10]Department of Health, Research & Training, U-Chicago Research Bangladesh, Ltd., Dhaka, Bangladesh

Introduction: Epidemiological studies that investigate alterations in the gut microbial composition associated with smoking are lacking. This study examined the composition of the gut microbiome in smokers compared with nonsmokers.

Aims and Methods: Stool samples were collected in a cross-sectional study of 249 participants selected from the Health Effects of Arsenic Longitudinal Study in Bangladesh. Microbial DNA was extracted from the fecal samples and sequenced by 16S rRNA gene sequencing. The associations of smoking status and intensity of smoking with the relative abundance or the absence and presence of individual bacterial taxon from phylum to genus levels were examined.

Results: The relative abundance of bacterial taxa along the Erysipelotrichi-to-Catenibacterium lineage was significantly higher in current smokers compared to never-smokers. The odds ratio comparing the mean relative abundance in current smokers with that in never-smokers was 1.91 (95% confidence interval = 1.36–2.69) for the genus Catenibacterium and 1.89 (95% confidence interval = 1.39–2.56) for the family Erysipelotrichaceae, the order Erysipelotrichale, and the class Erysipelotrichi (false discovery rate-adjusted p values = .0008–.01). A dose–response association was observed for each of these bacterial taxa. The presence of Alphaproteobacteria was significantly greater comparing current with never-smokers (odds ratio = 4.85, false discovery rate-adjusted p values = .04).

Conclusions: Our data in a Bangladeshi population are consistent with evidence of an association between smoking status and dosage with change in the gut bacterial composition.

AN EXPLORATION OF MEDICAL STUDENT ATTITUDES TOWARDS DISCLOSURE OF MENTAL ILLNESS

Ian Fletcher[a], Michael Castle[a], Aaron Scarpa[a], Orrin Myers[b] and Elizabeth Lawrence[c]

[a]School of Medicine, University of New Mexico, Albuquerque, USA;

[b]Department of Family and Community Medicine, University of NewMexico School of Medicine, Albuquerque, NM, USA;

[c]Department of Internal Medicine, University of New Mexico School of Medicine,Albuquerque, NM, USA

Background: Medical students are reluctant to access mental health services, despite having high

rates of anxiety and depression. This reluctance persists through residency and into practice. Physicians and trainees who are unwell deliver lower quality patient care, behave less professionally, communicate less effectively and are at an increased risk for burnout and suicide. Little is known about whether students would disclose a mental health diagnosis on a state board medical license application.

Objectives: The objectives of this study were to determine whether University of New Mexico School of Medicine (UNM SOM) students would be willing to disclose a mental health diagnosis on a medical licensing application if prompted to do so, and, if not, to identify the reasons for their unwillingness to do so.

Design: We electronically invited all UNM SOM students enrolled in the Classes of 2019, 2020, 2021,and 2022 to participate in a confidential RedCap survey about mental health diagnoses and treatment. Four e-mail invitations and reminders were sent to students over a one-month period.

Results: Response rate was 50.1%. Thirty-six percent of all respondents considered them-selves to have had a mental health condition prior to medical school, and 47% of all respondents perceived a decline in mental health during medical school. The majority of respondents who perceived they had a mental health diagnosis (51%) stated they would not disclose this information on a New Mexico Medical Board (NMMB) license application. Fear of stigmatization, fear of repercussions, and a belief that such disclosure was irrelevant were the top reasons for non-disclosure.

Conclusion: Students who perceive themselves to have mental health diagnoses are unlikely to disclose their mental health status on state medical board licensing applications when asked to do so. Addressing barriers to disclosure of mental health diagnoses is necessary for building a healthier physician workforce.

KEYWORDS: Student wellness; medical student; mental health; mental health disclosure; mental Illness; medical licensure.

RISK FACTORS FOR SUICIDE IN BANGLADESH: CASE–CONTROL PSYCHOLOGICAL AUTOPSY STUDY

S. M. Yasir Arafat[1], M. A. Mohit[2], Mohammad S. I. Mullick[3], Russell Kabir[4] and Murad M. Khan[5]

[1]Department of Psychiatry, Enam Medical College and Hospital, Bangladesh.

[2]Department of Psychotherapy, National Institute of Mental Health, Bangladesh.

[3]Department of Psychiatry, Bangabandhu Sheikh Mujib Medical University, Bangladesh.

[4]School of Allied Health, Faculty of Health, Education, Medicine and Social Care, Anglia Ruskin University, UK.

[5]Department of Psychiatry, Aga Khan University, Pakistan.

Background: Suicide is an important, understudied public health problem in Bangladesh, where risk factors for suicide have not been investigated by case–control psychological autopsy study.

Aims: To identify the major risk factors for suicide in Dhaka, Bangladesh.

Methods: We designed a matched case–control psychological autopsy study. We conducted a semi-structured interview with the nextof-kin of 100 individuals who died by suicide and 100 living controls, matched for age, gender and area of residence. The study was conducted from July 2019 to July 2020.

Results: The odds ratios for the risk factors were 15.33 (95% CI, 4.76– 49.30) for the presence of a psychiatric disorder, 17.75 (95% CI, 6.48–48.59) for life events, 65.28 (95% CI, 0.75–5644.48) for previous attempts and 12 (95% CI, 1.56–92.29) for sexual abuse.

Conclusions: The presence of a psychiatric disorder, immediate life events, previous suicidal attempts and sexual abuse were found as significant risk factors for suicide in Dhaka, Bangladesh.

Keywords: Risk factors; suicide; Bangladesh; case–control study; psychological autopsy.

EPIDEMIOLOGY OF CHOLERA IN BANGLADESH: FINDINGS FROM NATIONWIDE HOSPITAL-BASED SURVEILLANCE, 2014-2018

Ashraful Islam Khan [1], Md Mahbubur Rashid [1], Md Taufiqul Islam [1], Mokibul Hassan Afrad [1], M Salimuzzaman [2], Sonia Tara Hegde [3], Md Mazharul I Zion [1], Zahid Hasan Khan [1], Tahmina Shirin [2], Zakir Hossain Habib [2], Iqbal Ansary Khan [2], Yasmin Ara Begum [1], Andrew S Azman [3], Mahmudur Rahman [2], John David Clemens [1], Meerjady Sabrina Flora [2], Firdausi Qadri [1]

[1]International Centre for Diarrheal Disease Research, Bangladesh (icddr,b), Dhaka, Bangladesh, [2]Institute of Epidemiology, Disease Control, and Research (IEDCR), Dhaka, Bangladesh, and [3]Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, USA

Background: Despite advances in prevention, detection, and treatment, cholera remains a major public health problem in Bangladesh and little is known about cholera outside of limited historical sentinel surveillance sites. In Bangladesh, a comprehensive national cholera control plan is essential, although national data are needed to better understand the magnitude and geographic distribution of cholera.

Methods: We conducted systematic hospital-based cholera surveillance among diarrhea patients in 22 sites throughout Bangladesh from 2014 to 2018. Stool specimens were collected and tested for Vibrio cholerae by microbiological culture. Participants' socioeconomic status and clinical, sanitation, and food history were recorded. We used generalized estimating equations to identify the factors associated with cholera among diarrhea patients.

Results: Among 26 221 diarrhea patients enrolled, 6.2% (n = 1604) cases were V. cholerae O1. The proportion of diarrhea patients positive for cholera in children <5 years was 2.1% and in patients e"5 years was 9.5%. The proportion of cholera in Dhaka and Chittagong Division was consistently high. We observed biannual seasonal peaks (pre- and postmonsoon) for cholera across the country, with higher cholera positivity during the postmonsoon in western regions and during the pre–monsoon season in eastern regions. Cholera risk increased with age, occupation, and recent history of diarrhea among household members.

Conclusions: Cholera occurs throughout a large part of Bangladesh. Cholera-prone areas should be prioritized to control the disease by implementation of targeted interventions. These findings can help strengthen the cholera-control program and serve as the basis for future studies for tracking the impact of cholera-control interventions in Bangladesh.

Keywords: cholera; diarrhea; surveillance; Bangladesh.

PREVALENCE OF DIABETES AND PRE-DIABETES IN BANGLADESH: A SYSTEMATIC REVIEW AND META-ANALYSIS

Sohail Akhtar ,[1] Jamal Abdul Nasir,[1] Aqsa Sarwar,[1] Nida Nasr,[1] Amara Javed,[1,2] Rizwana Majeed,[1] Muhammad Abdus Salam,[1] Baki Billah[3]

[1]Deaprtment of Statistics, Government College University Lahore, Lahore, Punjab, Pakistan

[2]School of Statistics, Minhaj University, Lahore, Pakistan

[3]SPHPM, Monash University, Melbourne, Victoria, Australia

Objective: The purpose of this paper is to perform a systematic review and meta-analysis in order to summarise the prevalence of diabetes and pre-diabetes and their associated risk factors in Bangladesh. **Design:** Systematic review and meta-analysis.

Participants: General population of Bangladesh.

Data sources: PubMed, Medline, Embase, Bangladesh Journals Online, Science Direct, Scopus, Cochrane Library and Web of Science were used to search for studies, published between 1st of January 1995 and 31st of August 2019, on the prevalence of diabetes and pre-diabetes and their associated risk factors in Bangladesh. Only articles published in the English language articles were considered. Two

authors independently selected studies. The quality of the articles was also assessed.

Results: Out of 996 potentially relevant studies, 26 population-based studies, which together involved a total of 80 775 individuals, were included in the metaanalysis. The pooled prevalence of diabetes in the general population was 7.8% (95% CI: 6.4–9.3). In a sample of 56 452 individuals, the pooled prevalence of pre-diabetes was 10.1% (95% CI: 6.7–14.0; 17 studies). The univariable meta-regression analyses showed that the prevalence of diabetes is associated with the factors: the year of study, age of patients and presence of hypertension. The prevalence of diabetes was significantly higher in urban areas compared with rural areas, while there was no significant gender difference.

Conclusions: This meta-analysis suggests a relatively high prevalence of pre-diabetes and diabetes in Bangladesh, with a significant difference between rural and urban areas. The main factors of diabetes include urbanisation, increasing age, hypertension and time period. Further research is needed to identify strategies for early detecting, prevention and treatment of people with diabetes in the population.

DEPRESSION, ANXIETY, STRESS LEVELS OF PHYSICIANS AND ASSOCIATED FACTORS IN COVID-19 PANDEMICS

Rümeysa Yeni ElbayN , Ayþe Kurtulmuþ, Selim Arpacýoðlu, Emrah Karadere

Ýstanbul Medeniyet Üniversitesi Göztepe Eðitim ve Araþtýrma Hastanesi, Merdivenköy Poliklinikleri, Merdivenköy Mahallesi, Ressam Salih Ermez Cd. No:14 Kadýköy/ Ýstanbul/TÜRKÝYE

Aim: To investigate anxiety, stress, and depression levels of physicians during the Covid-19 outbreak and explored associated factors in both clinical and general site.

Methods: An online survey is conducted to asses psychological responses of healthcare workers and related factors during Covid-19 outbreak. It is consisted of three subsections covering the following areas: 1) socio-demographic data 2) information on individuals' working condition 3) Depression Anxiety and Stress Scale-21 (DAS-21).

Results: Of all 442 participants, 286 (64.7%) had symptoms of depression, 224 (51.6%) anxiety, and 182 (41.2%) stress. Being female, young, and single, having less work experience, working in frontline were associated with higher scores, whereas having a child was associated with lower scores in each subscale. Factors found to be associated with higher DAS-21 total scores in frontline workers were as follows: increased weekly working hours, increased number of Covid-19 patients cared for, lower level of support from peers and supervisors, lower logistic support, and lower feelings of competence during Covid-19 related tasks.

Conclusions: Our findings highlight the factors which need to be taken into consideration to protect the mental wellbeing of doctors while fighting with a disaster that has major impacts on society worldwide.

Keywords: Doctors, Healthcare workers, Psychological effects, Outbreak.