Roles and Impact of Nurses in Promoting Medication Adherence of Patients under the TB-DOTS Program in District V, Manila

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INTRODUCTION

Tuberculosis (TB) remains a major global public health problem. It is estimated that about one-third of the world's population is infected with Mycobacterium tuberculosis.

Through the National Tuberculosis Program (NTP), TB-DOTS reached and sustained 100% nationwide coverage, achieving the global target for detection of new cases. The NTP Manual of Procedures (MOP) enlists the functions of health workers in TB-DOTS.
OBJECTIVES OF THE STUDY

- Identify the activities and specific interventions that nurses provide in relation to tuberculosis management.
- Describe the current state of adherence of TB patients undergoing TB medication in specific health centers of District V, Manila.
- Analyze the impact of nurses in the current state of adherence of TB patients undergoing TB medication in specific health centers of District V, Manila.
- Explore perceived barriers and opportunities of nurses to promote tuberculosis medication adherence of patients under the TB-DOTS Program in District V, Manila.
METHODOLOGY

• Descriptive Exploratory research design
• Eleven (11) TB nurses were profiled and surveyed using a questionnaire drafted from the 2005 NTP MOP.
• Twenty-nine (29) former TB patients (cured) were interviewed.
• A cohort of 723 TB case records were tabulated to determine the following for District V Manila:
  • cure rate
  • treatment completion rate
  • relapse rate
METHODOLOGY

• The data collected were analyzed in three levels, which include:
  1) triangulation of data from the former TB patients, community health nurses, and the data from the experts
  2) analysis of data using the *Self-Determination Model for Medication Adherence*
  3) and validation from expert’s opinion.
METHODOLOGY

• The transcribed data from the former TB patient interviews, key informant interviews, and FGD were then coded accordingly using *Strauss and Corbin’s (1998)* method. It involves three types of coding:
  o open coding
  o axial coding
  o selective coding
RESULTS

• The specific activities carried out by nurses to facilitate TB-DOTS treatment and promote medication adherence include the following:
  ▪ case-finding and case-holding
  ▪ recording/reporting TB cases in the local and national register
  ▪ management of anti-TB drugs and diagnostic supplies
  ▪ TB DOTS referral
  ▪ health education
  ▪ patient advocacy
  ▪ communication
  ▪ social mobilization

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RESULTS

• The current **treatment success rate** of 73% (n=600) in District V Manila did not meet the target National Treatment Success Rate of 90%.
  • The computed **treatment completion rate** is 56.43% (n=408)
  • The computed **cure rate** is 26.55% (n=192)
  • The computed **relapse rate** is 1.24% (n=9)

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Treatment Completed Rate and Cure Rate from January-June 2014 across 11 TB Clinics of District V, Manila

Treatment Success Rate: 73%
RESULTS

• Health Staff-Perceived and Health Expert-Perceived Barriers
  • Stigma
  • Side Effects/Adverse effects of the medications
  • Distance to the Health Center/Inaccessibility of the Health Center
  • Health Center's Opening Time and Dispensing of Medications
RESULTS

• Feeling better
• Lack of free and accessible diagnostics
• Inadequate Health Teaching and Information Dissemination (Treatment Literacy)
• Incorrect treatment regimen and contradicting health information between physicians
• Low salience to treatment
RESULTS

• Patient-Perceived Barriers
  • Stigma
  • Medication-Related
    • Side effects
    • Size of the tablets taken
    • Feeling better
  • Health Staff-Related and Health Center-Related
  • Beliefs about TB and TB treatment
Study Findings in the Context of Williams et.al’s *Self-Determination Model for Medication Adherence*

**Health Worker Perceived Barriers**
- Stigma
- Side Effects/Adverse Effects of Medications
- Distance to Health Centers
- Treatment Literacy
- Idea of Feeling Better
- Health Center Opening Time and Dispensing of Medications
- Lack of Free and Accessible Diagnostics
- Incorrect Treatment Regimen
- Low Salience

**AUTONOMOUS SUPPORT FROM TB NURSES**
- Roles and Functions of TB Nurses under the NTP Manual of Operations
  - Case-finding - Case-holding
  - Recording and reporting - TB DOTS referral
  - Management of anti-TB drugs and diagnostic supplies
  - Advocacy communication and social mobilization

**AUTONOMOUS MOTIVATION OF PATIENTS**
- Patient’s Perception regarding TB
- Reception of Patients to Health Teachings on TB
- Patient’s Salience
- Patient’s Economic Status
- Perceived Effect of Medication

**COMPOSITE ADHERENCE**
- Treatment success rate 73% (n=600)
  - Cure rate 26.55% (n=152), Relapse rate 1.24% (n=9)
  - Treatment completion rate 56.43%

**Patient Perceived Barriers**
- Stigma
- Medication Related Side Effects
- Health Staff Attitudes
- Health Center Opening Time
- Social Support
- Beliefs regarding TB and TB Treatment

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CONCLUSIONS

• The independent and collaborative roles performed by nurses exert a positive impact in promoting medication adherence, and contribute to the overall treatment outcome of the TB-DOTS strategy.
CONCLUSIONS

• Priority is concentrated more on the administrative and case management side of treatment, and less on the primary health care treatment approach. This, with the generally perceived underutilization of community health workers and inadequate engagement of treatment partners to optimize the DOTS strategy, contributes to the low cure rates of tuberculosis.
RECOMMENDATIONS

• The study recommends further training of nurses for them to improve in carrying out the TB treatment regimen to improve patient adherence.

• Strengthening the DOTS strategy may help improve adherence, as well as lessen the rates of default and relapse.

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Further training of nurses? Haha baka ma-issue tayo lolz

Arielle Arcangel, 04/06/2016
THANK YOU!

MARAMING SALAMAT!

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REFERENCES


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