

RESEARCH PROPOSAL

BACHELOR THESIS MEDICATION SAFETY ON BEHALF OF THE GIMS FOUNDATION

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INTRODUCTION

Background

The health risk through the use of medicines is a problem that not everyone is familiar with. It is not fully clear how different countries in the world think about this topic, and what they do about it. The term medication safety is a broad term, and is interpreted differently by various countries.

The Global Initiative on Medication Safety Foundation (GIMS) drafted its own definition for the term medication safety: “Minimize health risks originated by the global use of medicine”.

GIMS was founded in 2014 and is supported by the board of Farmacie Mondiaal Foundation. GIMS wants to initiate and create a higher level of (awareness of) medication safety. To minimize the health risks originated by the global use of medicine, GIMS aims at creating awareness and responsibility in the medical chain, health care governance and patients worldwide. GIMS focuses on supporting responsible parties in the medical chain and health care governance to improve the level of professionalism of the processes and structures of prescribing and dispensing of medicine and guidance of patients in how to use medicine.

Problem statement

The main goal of this bachelor thesis is to gain insight in the degree of awareness of professionals and concerned directors (in the medical chain in different countries) regarding the health risks through the use of medicines (medication safety).

The secondary goal is to gain insight in the process of prescribing, dispensing and the guiding of patients with the use of medicines in the different countries. It will be studied how this process and the sub processes are structured, and how the data is processed, coupled and/or automated/digitized. We look which ICT systems are used in the medical chain. The conditions that determine the parameters are also important (economy, 3G/4G coverage, internet infrastructure, culture, religion, governments, availability of medicines)

APPROACH

Regions and countries

Two students will each work on separate bachelor theses. These theses differ from each other in the target countries that are being studied. The countries are:

- **Europe:** The Netherlands, Germany, United Kingdom, Belgium, France, Switzerland, Sweden, Poland, Portugal, Greece
- **Asia:** Afghanistan, Iran, Israel, United Arab Emirates, Laos, Japan
- **Africa:** Egypt, Ghana, Kenya, Rwanda, South Africa
- **North America:** United States of America, Canada
- **South America:** Suriname, Argentina
- **Australia:** Australia

Chuck van de Cappelle will study: United Kingdom, Belgium, Portugal, Poland, Switzerland, Iran, Israel, United Arab Emirates, Rwanda, Kenya, United States of America, Argentina, Australia

Negina Nangrahary will study: The Netherlands, Germany, France, Sweden, Greece, Afghanistan, Laos, Japan, Egypt, Ghana, South Africa, Canada, Suriname

In the African countries, it is important that in terms of medication the focus will be on HIV, malaria and tuberculosis. Since they are dominating diseases in those countries.

Literature study and interviews

Each country will be studied through a literature study and by interviewing professionals in the countries.

For each country a literature study will be done on what is already known about the health risks of using medicines in that country. Therefore, this bachelor thesis has a scientific nature. The interviews take place after the literature study is finished. The student will try to make contact with pharmacists, professional associations, insurance companies, governments and the WHO.

The professionals will be interviewed on the basis of a questionnaire. The students will do this by a dynamic approach, in which the questionnaire can be adjusted on the basis of later insights.

Neutral point of view

Culture, religion and governmental power are sensitive issues and can have a major impact on the national and/or local process of prescribing, dispensing and the use of medicines.

GIMS is a non-governmental, non-political and non-religious organization. GIMS will adopt a neutral position at all times. The students should also take a neutral stand during the whole bachelor thesis.

FINAL PRODUCT

The bachelor thesis will result in two final products: a project report and an overview of the main results of the studied countries. The project report will be a text document containing the approach, literature study, results, conclusions and advices. How the overview document will be is not clear yet.

The products will be written in English, and be published on the website of GIMS.

APPENDIX 1: LITERATURE STUDY

For each country a literature study will be done on the awareness of the health risks when using medicines (medication safety) in that country.

The search for studies on the topic of medication safety will be done at organisations, foundations, governments, universities and other sources. Besides the search for studies, we will ask respondents in the interviews if they are aware of studies in the field of medication safety in their country.

The following questions will be studied for each country:

- What is the general awareness on medication safety?
- What studies have already been conducted in the field of medication safety? And what are the results of these studies?
- How is the health care structured in the concerning country?
- What laws and regulations does the government set in terms of medication safety?
- Which guidelines do professional organisations have in terms of medication safety?

APPENDIX 2: INTERVIEWS

The professionals will be interviewed on the basis of a questionnaire. This is done by a dynamic approach, in which the questionnaire can be adjusted on the basis of later insights. It is important that the students take an open, neutral stand to the respondents. The students should not judge during the interview.

The questionnaire is given below. The questions are written in general. In the African countries, it is important that in terms of medication the focus will be on HIV, malaria and tuberculosis.

QUESTIONNAIRE

Diagnosis and prescribing

1. Where does a patient go when he doesn't feel well?
2. Who makes the diagnosis?
3. What happens after the patient has been diagnosed?
4. Who is allowed to prescribe medicine?
5. How are medicines prescribed?
 - I. Digital or by paper?
6. What happens after a medicine is prescribed?
7. Who are allowed to sell medicine?

Processes in the pharmacy

8. What is the process from a prescription that enters the pharmacy to medication dispensing by the responsible person?
 - I. What kind of ICT-systems are used in this process?
 - II. What are the ICT-systems used for?
9. Are there any checks done on a prescription?
 - I. Who does those checks?
 - II. What kind of checks are done?
 - III. In what extent are you familiar with the terms: drug interaction; dosage control; double medication and contraindications.
10. Are there certain medicines that need extra vigilance?
11. Do patients always need to go to the same pharmacy? Or are they always going to different pharmacies?
12. Is the prescription included in a patient medical record?
 - I. Is this done in a paper file or a digital file?
 - II. What kind of ICT-system is used for this patient medical record?
13. What happens when a medicine is dispensed to a patient for the first time?
14. In what extent is an explanation given on how the medicine should be used?
15. In what extent is the importance of patient compliance explained to the patient?
 - I. How is the compliance of the patient checked afterwards?

Availability of medicines

16. What is the state of the availability of medicines?
17. In what extent does the availability of medicines affect the medication safety?

Contact with other professionals

18. In what extent do you have contact with other health care professionals?
 - I. What kind of contact is this?
19. What happens when the pharmacist does not agree with the prescription?
 - I. Is the pharmacist allowed to change a prescription by himself or does he need approval from a doctor?
20. Do pharmacists and general practitioners have a joint system?
 - I. What kind of system is this?
21. In what extent are other pharmacists in your country allowed to look into a patients medication overview?
 - I. Is there a joint system between pharmacies?
 - II. What kind of system is this?

The pharmacy and pharmacist

22. What education is required to become a pharmacist?
23. Are there pharmacies that belong to a pharmacy chain?
24. Who owns the pharmacies in your country in general? The pharmacist, a pharmacy chain, a company, the government or a combination of those?

Medication safety

25. Can you explain what you think medication safety is?
26. What do you think of the level of medication safety in your pharmacy?
27. Do you see opportunities to improve the medication safety in your pharmacy?
28. In what extent do you have the will to improve the medication safety?
29. Do you know any studies that have been done on the topic of medication safety in your country?

End of the interview

30. How have you experienced the interview?
31. Is it good if I have the possibility to contact you later with new insights?
32. Do you want to have your name in the final project report?
33. Do you want to receive the final project report of this bachelor thesis when it is finished?