DEVELOPMENT OF PHYLLANTHUS NIRURI (DUKUNG ANAK) CHEWABLE TABLET



RESEARCH MANAGEMENT INSTITUTE UNIVERSITI TEKNOLOGI MARA 40450 SHAH ALAM, SELANGOR MALAYSIA

DISEDIAKAN OLEH:

MEOR MOHD REDZUAN B MEOR MOHD AFFANDI

JAN 2010

DEVELOPMENT OF PHYLLANTHUS NIRURI (DUKUNG ANAK) CHEWABLE TABLET

DISEDIAKAN OLEH:

MEOR MOHD REDZUAN B MEOR MOHD AFFANDI

JAN 2010

KUMPULAN PENYELIDIK

MEOR MOHD REDZUAN B MEOR MOHD AFFANDI KETUA PROJEK

| Tandatangan |
|--|
| |
| |
| |
| TOMMY JULIANTO BUSTAMI EFFENDI Ahli |
| |
| |
| Tandatangan |

ABSTRACT

The aim of this study is to formulate *Phyllanthus niruri* chewable tablet and to conduct customers' acceptance study towards the newly formulated product. The tablet was prepared by using wet granulation process and physical characterization tests were carried out by collecting a sample of tablets from the batch and determining their uniformity of weight, hardness, thickness, diameter and friability. The customer acceptance study was done by distributing questionnaires to 30 Universiti Teknologi MARA students. The results showed that the formulated *Phyllanthus niruri* chewable tablet was within the specification as per British Pharmacopeia and were positively accepted by the respondent. The shape and texture of the tablets significantly (P < 0.05) influenced the customers' satisfaction towards the physical appearance of the product. In terms of taste, the customers' satisfaction are significantly (P < 0.05) influenced by the sweetness, sourness and cola flavor of the product. In conclusion Phyllanthus niruri chewable tablet was successfully formulated with the good acceptance by the respondents.

TABLE OF CONTENT

| | | Page |
|----------------------------|--------------------------------------|------|
| AP | TLE PAGE PROVAL BLE OF CONTENT | ii |
| LIST OF TABLES | | iv |
| | ST OF FIGURES | v . |
| AB | STRACT | VÍ |
| CHAPTER ONE (INTRODUCTION) | | 1 |
| 1.1 | Background | 1 |
| | Statement of problem | 3 |
| | • | 4 |
| | Objectives | 4 |
| 1.3 | Hypothesis | 4 |
| СН | APTER TWO (LITERATURE REVIEW) | 5 |
| 2.1 | Herbal medicine | 5 |
| 2.2 | Phyllanthus niruri L. | 7 |
| | 5 5 | 12 |
| | Chewable Tablet. | 13 |
| 2.5 | Commercialized products | 14 |
| СН | APTER THREE (MATERIALS AND METHODS) | 16 |
| 3.1 | Materials | 16 |
| | 3.1.1 Raw materials | 16 |
| | 3.1.2 Preparation of granules | 16 |
| | 3.1.3 Preparation of tablets | 17 |
| 3.2 | Characterization of tablets | 17 |
| | 3.2.1 Hardness | 17 |
| | 3.2.2 Uniformity of weight | 17 |
| | 3.2.3 Diameter | 18 |
| | 3.2.4 Thickness | 18 |
| | 3.2.5 Friability | 18 |
| 3.3 | Customer acceptance study | 18 |
| | 3.3.1 Designing questionnaire | 18 |
| | 3.3.2 Respondent | 19 |
| | 3.3.3 Results | 19 |