

**ACCEPTANCE AND KNOWLEDGE OF HERBAL MEDICINES AMONG
PHARMACY STUDENTS**



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**LAPORAN AKHIR PENYELIDIKAN "ACCEPTANCE AND KNOWLEDGE OF HERBAL
MEDICINES AMONG PHARMACY STUDENTS"**

Merujuk kepada perkara di atas, bersama-sama ini disertakan 4 (empat) naskah Laporan Akhir Penyelidikan bertajuk "Acceptance and Knowledge of Herbal Medicines among Pharmacy Students".

Sekian, terima kasih.

Yang benar,



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Projek Penyelidikan

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PROPOSED EXECUTIVE SUMMARY

The remarkable global increase in the use of herbal remedies is set to continue apace well into the foreseeable future. This raises important public health concerns, especially as it relates to safety issues, including adverse effects and herb-drug interactions. Most health practitioners are ignorant of the risks and benefits of this healthcare modality and assessment of acceptance and knowledge would identify appropriate intervention strategies to improve communication in this area.

Majority of the population in the developing world use traditional medicines for the management of health, including herbal remedies. In the developed world, the dramatic revolution in healthcare was facilitated by the discovery of pharmacologically active chemical entities (supported by evidence-based safety and efficacy testing) and this has shifted the emphasis away from traditional herbal medicine. Consequently, many pharmacists lack knowledge on the benefits and risks of herbal medicines. Only a few studies have reported on the knowledge, attitudes and practices of pharmacists regarding complementary and alternative medicine, with little emphasis on herbal medicine. Recognition of the importance of education on herbals and other dietary supplements is fairly new, thus evaluations of the knowledge and opinions of pharmacy students regarding natural products are necessary. Unfortunately, literature regarding this population and herbal medicines is also minimal. One survey that evaluated pharmacy students' knowledge of alternative medicine found that course works focusing on this topic significantly improved the students' knowledge base.

This study was undertaken primarily to determine the level of acceptance and knowledge regarding herbal medicine by pharmacy students of local universities in Penang. The objectives of the study are to evaluate the level of acceptance and knowledge regarding herbal medicine by pharmacy students, (2) to determine the relation between student's acceptance and knowledge with some demographic data, and (3) to assess the student's awareness about the safety of herbal medicine.

ENHANCED EXECUTIVE SUMMARY

Herbal medicine is an alternative medical practice that has become increasingly popular over the last few years, with self-medication making up the majority of the consumer. The increase in the use of herbal products by public has also contributed to an increased interest by healthcare professionals about the use of these products, including the pharmacists. Pharmacists are in an ideal position to educate public members about herbal medicines, due to their knowledge and nature of work. This study explores pharmacy students' acceptance and knowledge towards the use of herbal medicine and to compare these into two cohorts of pharmacy students (Dip.Pharm and B.Pharm).

The study consisted of a cross-sectional survey with the objective of relating their acceptance and knowledge to ethnicity, gender and by level of their study. A convenience sample of 157 senior pharmacy students was included in the study to represent all pharmacy students in Penang local universities. Students were asked to complete the survey voluntarily and anonymously. The 22-items questionnaire consisted of four sections: 1) demographic information, 2) sources of herbal information, 3) attitudes and beliefs about the use of herbs, and 4) student's knowledge and awareness about herbal medicines.

Most of the students (72.6%) were interested to get information about herbs, as they believed that herbal medicines are an alternative medicine that is naturally safe to consume. Respondents show positive attitudes towards herbal medicine, with high acceptance levels (mean = 7.32 ± 0.13 points or 66.5% of total possible score), and no significant effect of gender, ethnicity and education levels. However, they indicated a poor knowledge (mean = 9.51 ± 0.57 points or 27.2% of total possible score) of herbal medicines, with a significant effect of education levels ($p=0.01$). Overall, the findings of this study demonstrate that pharmacy students were more knowledgeable about the supposed indications of herbal products than about other aspects such as contraindications and herb-drug interactions.

The study results may points to the possible need for revising existing local pharmacy curriculum to modify their programs to better prepare students to educate consumers and provide herbal medicine counseling when they enter the workplace. It may also aid in the development of continuing education programs regarding herbal medicine that is relevant to pharmacy practice.