



Determinants of caregivers' awareness of Universal Newborn Hearing Screening in Malaysia



Abdul Halim Abdul Majid ^{a, *}, Mohd Normani Zakaria ^b, Nor Azimah Chew Abdullah ^a, Sulaiman Hamzah ^c, Siti Zamratol-Mai Sarah Mukari ^d

^a School of Business Management, UUM College of Business, Kedah, Malaysia

^b School of Health Sciences, Health Campus, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia

^c Department of Otorhinology, Hospital Raja Permaisuri Bainun, Ipoh, Perak, Malaysia

^d I-HEARS – Institute of Ear, Hearing & Speech, Universiti Kebangsaan, Malaysia

ARTICLE INFO

Article history:

Received 23 March 2017

Received in revised form

22 July 2017

Accepted 25 July 2017

Available online 27 July 2017

Keywords:

Determinants

Caregivers' awareness

Universal Newborn Hearing Screening

Malaysia

ABSTRACT

Objective: This paper aims to investigate the effects of perceived attitude and anxiety on awareness of UNHS among caregivers in Malaysia.

Methods: Using cross sectional research approach, data were collected and some 46 out of 87 questionnaires distributed to caregivers attending UNHS programs at selected public hospitals were usable for analysis (response rate of 52.8%). Partial Least Squares Method (PLS) algorithm and bootstrapping technique were employed to test the hypotheses of the study.

Results: R square value is 0.205, and it implies that exogenous latent variables explained 21% of the variance of the endogenous latent variable. This value indicates moderate and acceptable level of R-squared values. Findings from PLS structural model evaluation revealed that anxiety has no significant influence ($\beta = -0.091$, $t = 0.753$, $p > 0.10$) on caregivers' awareness; but perceived attitude has significant effect ($\beta = -0.444$, $t = 3.434$, $p < 0.01$) on caregivers' awareness.

Conclusion: Caregivers' awareness of UNHS is influenced by their perceived attitude while anxiety is not associated with caregivers' awareness. This implies that caregivers may not believe in early detection of hearing impairment in children, thinking that their babies are too young to be tested for hearing loss. Moreover, socio-economic situation of the caregivers may have contributed to their failure to honor UNHS screening appointments as some of them may need to work to earn a living while some may perceive it a waste of time honoring such appointments. Non-significant relationship between anxiety and caregivers' awareness may be due to religious beliefs of caregivers. Limitations and suggestions were discussed.

© 2017 Elsevier B.V. All rights reserved.

1. Introduction

Although congenital hearing loss is highly prevalent, about half of them are preventable via primary prevention [1]. Early screening and identification of newborn hearing defect when a baby is delivered are specifically crucial to reducing future influence hearing loss on newborns development [2–6]. Thus, newborn's hearing loss should be identified shortly after the birth to ensure timely and appropriate interventions that would ward off or abate the effects of hearing loss on child speech and language

development [4,7]. Also, well-timed discovery and intervention can mitigate the growing trends of hearing impairment [8,9]. Consequently, therapeutic measures can be introduced and instituted. The measures would aim to ensure avoidance of illness and enhanced quality of life for the newborns and their families. Universal Newborn Hearing Screening (UNHS) program has been initiated as a measure of early discovery and intervention.

UNHS is widely practiced across the globe, although its implementation varies depending on the financial and human resource availability. Literature has revealed the feasibility of UNHS and its efficacy in timely discovery of hearing impairment in children. Moreover, out of the 6.5 billion people in the world, about 5.3 billion live in developing countries. Population growth rates continue to rise in some countries in Asia, Africa and Latin America.

* Corresponding author.

E-mail address: ahalim@uum.edu.my (A.H. Abdul Majid).

Two thirds of the newborns with severe to extreme hearing loss are in developing nations [10].

UNHS program in developing countries faces many challenges. These challenges border on low level of public awareness, limited funding, lack of manpower, insufficient support services, and the doubtfulness about the commitment of healthcare practitioners. These challenges have adversely affected UNHS exercises in the developing countries [11]. However, these challenges are not insoluble and pilot studies in each country should be done, as this will offer empirical data that will guide healthcare providers in initiating such kind of scheme at any level of healthcare delivery [11].

Besides, daily application of UNHS program enhances the awareness of caregivers regarding the problems of newborns hearing loss. It also radically abates the time prior to diagnosis of hearing loss in the newborn population. The findings of the two pilot studies, which were conducted at Hospital Alor Setar (Hospital Sultanah Bahiyah) in 2007 and Hospital Raja Perempuan Zainab II, Kota Bharu in 2009, indicate that shortage of awareness regarding the value and worth of UNHS program among the hospital employees and caregivers is one the major problems facing the program. Hence, this paper aims to examine the effects of perceive attitude and anxiety on caregivers' awareness of UNHS in Malaysia (a selected developing country).

Moreover, in developing nations, there is no enough ear-care experts [12]. However, ear-care experts are numerous in the developed nations. There are as many as 320 otolaryngologists per million children under 15 in the developed nations while less than one otolaryngologist per million children is recognized in some regions of the developing nations. More so, the developing nations still lag behind as they have not had their shares in the advances and progresses recorded in the fields of audiology and audiological medicine in the last 20 years in the developed nations [13]. Majority of higher institutions of learning in the developing nations are devoid of official full-time training on audiology and speech pathology.

Geographical locality and socio-economic background of the caregivers exert influence on the accomplishment of the screening process from prompt detection to proper intervention. In some circumstances, lack of interest by the caregivers of impaired newborns can disrupt the continuation of screening process as some caregivers may disinterest if the newborns fail the preliminary screen [11].

Regarding attitudes, cultural and religious beliefs of the developing countries, it has been observed that, unlike the trends in the developed countries, persons with disabilities in the developing world are hardly given attention to. Exceptional provision for the people with disabilities is rare in the public amenities. Thus, the social stigma linked to an impairment such as hearing impairment usually make these people seclude themselves from the society. Some parents, whenever feasible, are hesitant towards the adoption of hearing devices for their kids. The reason is that such devices are manifest for people to see. More so, culture, religion and parental idealistic expectations play a big role in the total rejection of clinically fitting intervention alternatives. Nevertheless, there can be positive changes resulting from the efforts put in place for improving public awareness in the ante-natal clinics and communities. The awareness to be improved should concentrate on the advantages of quick intervention and the effects of lack of proper intervention [11].

Current practices suggest that part of the UNHS goals, which has not yet been fully accomplished, is enhanced examination and therapy of newborns hearing defects. Non-accomplishment of this goal could be due to intrinsic difficulties in the level of coverage, legislative and regulatory issues, and communication difficulties between healthcare workers and families [4]. Enhancement of the

existing UNHS system can be accomplished through strengthening the participation of the medical community in the practice; starting from screening stage to follow-up stage. For example, encouragement of human resource that will enlighten caregivers about the meaning of follow-up would reinforce pediatrician's roles, and it would also prepare professionals to integrate suitable investigation procedures with the day-to-day practice [7].

Efforts have been put up in the present time to ensure pragmatic newborn hearing screening system in order to lessen the referral rate and abate workloads of audiology follow-up, impalpable cost and parental anxiety [14]. It is the duty of the physicians to enlighten the caregivers after hearing screening. The enlightenment should mainly be directed at the caregivers of the newborns who fail the screening to sensitize them on ensuring proper follow-up care for their newborns. Furthermore, if caregivers repeatedly get input regarding the newborns medical and developmental requirements from their physicians, this would enhance follow-up, suitable referrals, and family support [7]. Nevertheless, it is required that the physicians be well-informed about the impact of hearing screening results and the effect of existing practices on the medical and educational treatment of infants with permanent hearing loss [7]. An effective UNHS program is generally much connected with enlightenment [15–18].

Given the exposition above, it can be discerned that lack of caregivers' awareness is crucial part of the challenges facing UNHS program. To solve the problem, there is need to increase public awareness and caregivers' awareness of the value of UNHS program and its beneficial outcomes [4] because persons with disabilities in the developing world are hardly given attention to and social stigma linked to an impairment such as hearing impairment usually make the disables seclude themselves from the society. Some parents are hesitant towards the adoption of hearing devices for their kids fearing that the devices are manifest for people to see. Culture, religion and the parental idealistic expectations also play a big role in the total rejection of clinically fitting intervention alternatives. Thus, this research attempts to investigate the effect of attitude and anxiety on caregivers' awareness through the following hypotheses:

- H1.** There is a significant relationship between caregivers' perceived attitudes and awareness of UNHS program.
- H2.** There is a significant relationship between caregivers' anxiety and awareness of UNHS program.

The findings of this study will establish the worth of educating caregivers about the need, value and ease of hearing screening exercise, the implications of the results and the effect of undiagnosed hearing loss, and stakeholders could possibly benefit from the findings.

2. Methods

This study adopted cross sectional survey method in which data collection and analysis were done to test hypotheses. The respondents of the study are caregivers of the new-borns in selected Malaysian public hospitals. Selection of public hospitals is informed by the fact that nearly all the caregivers attend public hospitals because it is free and government has invested hugely on UNHS program in the hospitals. In addition, public hospitals, being the major centers of UNHS program, were selected with the aim to offer suggestions and recommendations to the government regarding the aspects of UNHS program that need improvement.

In defining the population of this research, inclusion and exclusion criteria were employed. Caregivers with babies diagnosed with hearing impairment who attend the hospitals for

Download English Version:

<https://daneshyari.com/en/article/5714522>

Download Persian Version:

<https://daneshyari.com/article/5714522>

[Daneshyari.com](https://daneshyari.com)