



Behavior Of Glasses Users In Refractive Disorders With Theory Of Reasoned Action Approaches

Raimah Anbara^{1*}, Bakri Mat², and Salwani Arbak³

^{1,2,3}University Utara Malaysia (UUM)

*Corresponding email: ranbara@ymail.com

ABSTRACT

Issues and Problems : Glasses are a safe method for correcting refractive errors of the eye. A person with refractive error makes the decision to buy and use glasses because of various factors. One of them is caused by interests that are influenced by norms or other people's views about wearing glasses. Objective : This study was conducted to analyze the behavior of eyeglass users with refractive errors using the theory of Reasoned Behavior. Method: Qualitative method that utilizes primary and secondary sources in the form of official reference sources, and other printed and unprinted sources, as well as online sources that have been used. Finding: The results show that although glasses are a necessity for people with refractive errors, their behavior is influenced by the intentions of the users of the glasses. And the intention to get a visual aid is also influenced by the subjective attitudes and norms of the glasses user. Attitudes are formed from the beliefs or beliefs held about glasses and the evaluation of their use in helping the user's appearance. Meanwhile, norms are formed from norms that are believed to be related to the use of tools as a tool for refractive errors and motivation from the closest people and medical personnel. Recommendation: people with refractive errors are advised to increase their knowledge and understanding of the use in treating refractive disorders which are the controllers of negative norms owned by users so that the goal of overcoming visual disturbances and reducing eye damage can be carried out properly. Health workers are expected to contribute in providing information for the myths that exist in the community regarding the use of glasses

Keywords: User behavior, glasses, refractive disorder, reasoned action theory

INTRODUCTION

The eye as the sense of sight has the most dominant role in influencing every aspect of life. However, nowadays there are many visual disturbances, ranging from mild to severe which can lead to blindness. And global data found at least 1 million out of 2.2 million people have preventable or untreatable visual impairments (WHO, 2019).

WHO data in 2014 there are 285 million people in the world who have visual impairments, of which 39 million people are blind and 246 million people have low vision.(WHO, 2019). The countries with the most visually impaired people are China, India, Pakistan, Indonesia, and the United States (Pusdatin Kemenkes RI, 2018).

Indonesia is one of the countries with the most visually impaired population. According to a report from the Data Center and information system from the Ministry of Health of the Republic of Indonesia, many of which cause visual impairment, one of which is refractive abnormalities, which is 43 percent. The rate of refractive errors and blindness in Indonesia continues to increase with a prevalence of 3.0 percent and the highest compared to the number of blindness in other countries. Overseas Asian countries such as Bangladesh at 1 percent, India at 0.7 percent, and Thailand at 0.3 percent. Data on blindness in North Sumatra also shows that there are 30, 252 million people experiencing low vision problems or 1.6 hundred (Pusdatin Kemenkes RI, 2018).

Refractive disorder is not a disease, however, the refractive error becomes a serious problem if it is not treated quickly. Refractive errors will interfere with daily life activities and can even reduce productivity and the level of human resources (Sidarta Ilyas. 2014). Eye mirrors are still the safest method for correcting distractions ((Setiasih & Setyandriana, 2014)).

Study results from *Rapid Assessment of Avoidable Blindness*(RAAB) showed that the

level of coverage of eyeglasses for correcting refractive errors varies widely in 17 countries, ranging from 6 percent and 84 percent. According to a report by the Indonesian Optical Entrepreneurs Association (GAPOPIN), there are about 40 percent or around 80 million people in Indonesia have to wear glasses (GAPOPIN, 2016).

At this time, the phenomenon seen is no longer any different for eyeglass users who have refractive errors or who are fashionable. The results of previous research conducted found that on average many optical business places still do not have permits because they prioritize trade over health services. Some optics only have experience, so eyeglasses are sold at low prices by following current fashion trends and market demand. Refractive disorder patients do not know the dangers of glasses that are not by health standards, there are still many who do not know and differentiate where eyeglasses are sold according to health, do not question whether the glasses used are not following health standards and trends in the use of glasses due to needs and habits people (Anbara, 2016).

The refractive error experienced is the main reason a person wears glasses. However, there are also many individual intentions to use glasses due to other factors. Theory of Reasoned Action(*Theory of Reasoned Action*- TRA) is a model for predicting behavioral intention, which develops predictions of attitudes and behavior. This TRA is derived from previous studies that introduced attitude theory which leads to the study of attitudes and behavior. Derived from a social psychology background, TRA consists of three constructs: behavioral intention (BI), attitude (A), and subjective norm (SN), this theory states that the tension in a person's behavior depends on a person's attitude about behavior and subjective norms ($BI = A + SN$). If a

person intends to behave then the person is likely to do so (Ajzen, 1991).

TRA theory and the results of previous studies also found that a person's behavior to buy and use goods tends to be caused by interests that are influenced by attitudes that arise because of existing values or other people's views about these goods. According to a study by Laoviwat et al., (2014) in Thailand, it has been found in his investigation that the factor of using glasses is indeed influenced by the intention factor to meet the needs of healthy eyes. Studies conducted by You et al., (2012) use myopia as the most frequent reason for wearing glasses.

Although there is no research that uses the theory of reasoned behavior in examining the reasons for using glasses, especially for people with refractive errors. This research was conducted in Medan City. The choice of the city of Medan as the research location because the city of Medan is one of the big cities in Indonesia and ranks 3rd in Indonesia and there is also the sale of glasses freely without a prescription. And the incidence of high refractive errors in 2019 was 33,930 cases. Based on this study, it is hoped that by using this theoretical approach, a new concept is generated that can answer how the framework for changing the behavior of eyeglass users is seen from the intention to use glasses.

METHOD

This study uses a qualitative approach. This method was carried out to obtain information from informants what prompted them to buy and use glasses where they wanted and to explore in depth about the desired needs in dealing with the problem of eye refraction abnormalities. Methods of collecting data from information, The method of collecting data from information, especially eyeglass users, by using in-depth interviews with interview guidelines that were prepared by the

researchers themselves and followed by a focus group discussion.

The user informants consisted of 30 informants with refractive errors who wore glasses. After conducting in-depth interviews with the informants, it was followed by a focus group discussion, where the informants were divided into 3 groups, namely the group using glasses according to health standards, groups using glasses that did not meet health standards and groups using mixed health glasses.. All of the informants are aged between 18 and 50 years. Information from informants who do not wear glasses who are not health experts was obtained from the owner of Optics in the city of Medan..

The questions in the semi-structured interview are determined beforehand, but the answers to these questions are open and can be developed according to the opinion of the interviewer and the informant. Data collection in the investigation consisted of primary data and secondary data. Primary data collection is data that is directly obtained through the results of in-depth interviews in a semi-structured structure and focus group discussions. Data collection begins with in-depth interviews with all informants to obtain information on the behavior of eyeglass users. Then, the informants were grouped based on the results of the interview into 3 groups, namely the group of users of glasses that did not comply with health standards, groups of users of glasses who did not consistently use glasses according to health standards and groups of users who used glasses according to health standards.

The data obtained were analyzed based on the themes and sub-themes that have been determined in the conceptual framework of the study. The data analysis process has been carried out by descriptive analysis.

Analysis used to obtain the results of the study and discussion as well as conclusions and recommendations for future actions. The themes discussed together with the views of expert informants who analyze according to their areas of expertise or scholarship. Researchers summarize findings or insights in tabular form while in other cases use graphs especially pie charts and model designs to interpret findings and conclusions from findings as well.

RESULT AND DISCUSSION

This research was conducted in 2 stages, namely in-depth interviews with people with refractive errors to obtain information on the behavior of using glasses. Then based on the results of the interview, the researcher continued with the Focus Group Discussion (FGD) activity. This study describes the behavior of people with refractive errors in using glasses seen from the user's intention by using a reasoned behavioral theory approach. Based on the results of interviews with informants obtained:

1. Attitude towards the behavior

Attitude is a function of beliefs about the behavioral consequences of using glasses or normative beliefs, perceptions of the behavioral consequences of using glasses and an assessment of these behaviors. Attitude also means a general feeling that expresses the favor or disfavor of people with refractive errors of the eye towards glasses that prompts their response to suggestions for using them. The results of interviews with informants stated that the perceived visual impairment prompted them to use glasses as a visual aid and felt visually impaired if they did not use the glasses. This is according to what the informant said:

"...If I don't wear glasses, I'm very distracted. After I put on the glasses, my

vision was really clear, the small writings were visible, my eyes didn't water. And minus my nearsightedness has also decreased" (P8).

"...wearing glasses is no other option to overcome vision, not because of age. Because I've been wearing glasses since I was little and I have no other choice to overcome my visual impairment" (P2)

In a separate interview, the expert informant confirmed that refractive errors cannot be cured, but can be helped with visual aids. And this makes input for people with refractive errors of the eye to use glasses. Expert informants say:

"...The refractive error can't be cured, you have to use a visual aid. These vision aids can be in the form of glasses and contact lenses, so it is very much needed by the community as people who have refractive errors must wear glasses to help their vision return to sharp from normal (B5)

Although ophthalmologists state that people with refractive errors will not be able to see perfectly without the help of glasses, but there are still many people who have a negative assessment of the use of glasses. There are still people with refractive errors who don't use glasses on the right. This can be expressed by the participants of the focus group discussion (FGD) groups that are not in accordance with health standards:

"...Actually I was afraid to use them because the myths scared me" (FGD1)

"...But there are also negative thoughts related to myths, how come you are still young and already wear glasses" (FGD1)

The refractive error of the eye causes a person to need treatment to get clear vision. However, there are differences in the response of patients with refractive eye disorders in responding to the handling of the disorders they suffer. Positive assessment of the use of glasses encourages sufferers to use glasses as a visual aid. On the other hand, the negative judgment that they have causes the sufferer to choose not to use glasses according to health standards

2. Subjective Norms

Subjective norms or norms held by a person or family. The encouragement of family members, including closest friends, also influences people with eye refraction disorders to accept the action of using glasses, which is then followed by advice, advice and motivation from family or relatives. The ability of family members or closest relatives to influence an individual to behave as they expect is obtained from the experience, knowledge and assessment of the individual towards certain behaviors and his belief in seeing the success of others using glasses as suggested.

Family or close friends influence the selection of frames that match the user's face. Suggestions are needed when people with refractive errors choose and make a decision on which glasses to use. This can be seen from the statements of the informants:

"...needs to be accompanied, because it can provide input related to glasses" (P7)

"...husband, otherwise my parents will accompany me to increase my confidence in making the decision" (P2)

"...yes, family. If we choose, it's not only us who see it, but also other people who see it, so what is the view of that person when I choose, is it suitable or not (P4)

"...the opinion of others too, usually the wife. Because he sees my face every day" (P5)

"...feels the need to be accompanied by a friend who wears glasses because friends understand more about glasses" (P12)

"...because I am more confident about input from friends (P21)

The development of models and trends encourages the emergence of new glasses and supports the user's fashion. And when you see other people wearing glasses with new models and seem to support their appearance, this becomes the motivation for glasses users to replace and use the glasses. This can be seen from the informant's expression:

"...I saw a friend wearing it, how come he's good, there is a desire to change it, in terms of the frame, I tried it, maybe it doesn't suit my face" (P8)

However, in separate interviews, informants who have knowledge and confidence in themselves reveal that they do not need values or input from other people, including close family, in deciding to use glasses. This can be seen from the informant's expression:

"...I choose by my own decision (P9)

Family or closest relatives have an influence on sufferers in making decisions to use glasses or not as a tool to overcome the disorder. The influence is in the form of input to the model or frame that matches the user's face. However, not all sufferers need the judgment of others to make a decision on the glasses they use. Self-confidence and self-concept make the individual confident in the choice of glasses to be used.

3. Behavioral Intention

Intentions are determined by attitudes, important norms in society and subjective norms. The first component refers to the attitude towards the behavior of using glasses in people with refractive errors of the eye. The majority of eyeglass users with refractive errors are based on the intention to be able to see well and clearly. This can be seen from the statements of the informants:

"...the intention is to ease the vision so as not to get dizzy, the goal is to reduce the burden on the eyes (P8)

"...I intend to use these glasses because I want to be able to see like before, clearer and brighter (P17)

"...The intention is because he has had an eye disorder, so he has difficulty in carrying out activities and the goal is to help clarify vision" (P23)

In a separate interview, people with refractive errors also stated that their intention to use glasses was not only to help vision, but also to reduce the complaints they felt due to their refractive errors. This can be seen from the informant's expression:

"...When I started wearing glasses, the goal was to reduce headaches because when I consulted the doctor, it was recommended to wear glasses (P1)

Glasses users with refractive errors also revealed that the main intention to use glasses was due to the aspect of using glasses as a viewing and reading aids well as protection so that glasses are needed by users for their work or activities. This is in accordance with the informant's expression:

"...I agree, it's just more about using the glasses because of the work factor where the lighting conditions are minimal and indeed my eyes can't see clearly if the lighting is minimal" (P5)

"...yes, so that I can clearly see both reading and sewing (P6)

"...yes, because it's very dangerous, right, if I don't wear glasses when driving at night, that's why I convinced myself that it's okay to wear glasses (P7)

"...I'm a teacher, every day in front of the laptop. If I don't wear glasses, how can I see? So this is indeed a need to carry out activities (P9)

However, due to lack of knowledge about appropriate glasses its health and function cause sufferers to use glasses due to trial and error. This can also be seen from the informant's expression:

"...I intend no. I wear glasses because they were offered and tried on, they fit. Finally I use (P12)

People with refractive errors buy and use glasses with the intention of being able to see well and clearly. With the disorder they have, the motive or intention of the eyeglass user is more dominant to help vision and reduce the complaints they feel. Even so, offers from sellers who come and eyeglass users feel comfortable and like the model of their glasses encourage users to want to use glasses. Even though the glasses sold do not have a prescription for eye damage suffered by the experts.

4. Behavior

Behavior is an action that has been chosen by people with eye refraction disorders to be displayed based on the intentions that have been formed. The behavior of using glasses is a transition of intentions or intentions into actions or actions using glasses. Patients with refractive errors use glasses depending on their intentions and beliefs. This can be seen from the statements of informants with eye refraction disorders in their intention to use glasses:

Matrix 1. Behavior of Glasses Users Based on Intentions of Informants with Eye Refractive Disorders

Informant	Statement
P7	<i>"..I started wearing glasses at the age of 22. When I drive at night when exposed to light my eyes see like a shadow after that I try to find out and check the optics. I'm sure to use glasses because it's very dangerous if I don't wear glasses when driving at night, that's why I convinced myself that it's okay to wear glasses"</i>
P8	<i>"..The intention is to relieve vision so as not to get dizzy, the goal is to reduce the burden on the eyes. I immediately consulted a doctor. If the glasses are uncomfortable, I don't wear them. I replace it if the minus is no longer suitable. Usually I rarely change the frame. What I often change is the lens. Glasses are always used unless sleeping"</i>
P17	<i>"..I intend to use these glasses because I want to be able to see like before, clearer and brighter. The glasses are very helpful in my activities when I want to read something, watch the news on television. I am very lucky to have these glasses, where there is an important moment for me to be able to follow developments. I rarely use glasses in my daily life, only when I read and watch"</i>
P20	<i>"..I wear glasses by trying. At first I used it without checking, but it caused my eyes to have no clear vision, nor was it visible. In the end I didn't use it. I have no consideration of buying, I just buy what is important when it is used, isn't it?"</i>
P23	<i>"..The intention is because he has experienced eye problems so that he experiences obstacles in carrying out activities and the goal is to help clarify vision. Glasses are a necessity, if the doctor recommends wearing glasses that are in accordance with the price, it must still be fulfilled".</i>
P28	<i>"..I wear glasses as a visual aid and make me confident and the goal is eye health. But I don't always wear glasses because there is a myth that if you always wear glasses, the minus will increase. I am scared. Actually my eyes have been checked, out of fear, I ended up not wearing glasses. The results of the examination found that I was nearsighted, I bought glasses and I used them for a while. I just let it be. It's getting worse day by day".</i>

Matrix 2. Behavior of Glasses Users Based on Intentions by Focus Group Discussion

Group	Statement
FGD 1	<i>"..The intention is because he has had problems with his eyes so that he experiences obstacles in carrying out activities and the goal is to help clarify vision"</i>
FGD 2	<i>"...I have no intention. I wear glasses because they were offered and tried on, they fit. I finally used it". "...My goal is as a vision aid and makes me confident and the goal is for eye health. But I don't always wear glasses because there is a myth that if you always wear glasses, the minus will increase". "...I intend to use these glasses because I want to be able to see like before, clearer and brighter".</i>
FGD 3	<i>'..The intention is to relieve vision so as not to get dizzy, the goal is to reduce the burden on the eyes" "..For anti-radiation so as not to aggravate the damage to the affected eye". "..I agree, it's just more about using the glasses because of the work factor with minimal lighting conditions and indeed my eyes can't see clearly if there is minimal lighting".</i>

Based on the results of interviews with informants, the intention to use glasses affects the behavior of glasses users. Despite the intention to use glasses for visual needs, knowledge, beliefs or beliefs about the use of glasses influence the behavior to use glasses in accordance with health standards. This can be seen from the results of the FGD in group 2, namely the group that does not comply with health standards), where even though the need for glasses is related to perceived complaints, in daily behavior sometimes using glasses is not in accordance with what is recommended by health workers due to myths or beliefs about the use of glasses for eye health.

In addition, there is also an intention to try using glasses as a solution to overcome eye disorders. This was also found in the FGD 2 group, where the intention to use glasses was caused by trying the glasses offered by the seller.

And in contrast to the FGD 1 group (group according to health standards), all participants answered that overcoming visual disturbances and clarifying vision became their intention to use glasses. Meanwhile, in the FGD 3 group (the group that sometimes meets health standards and sometimes does not meet health standards) they have varied intentions and have an impact on the purpose of buying and using the glasses in their daily activities.

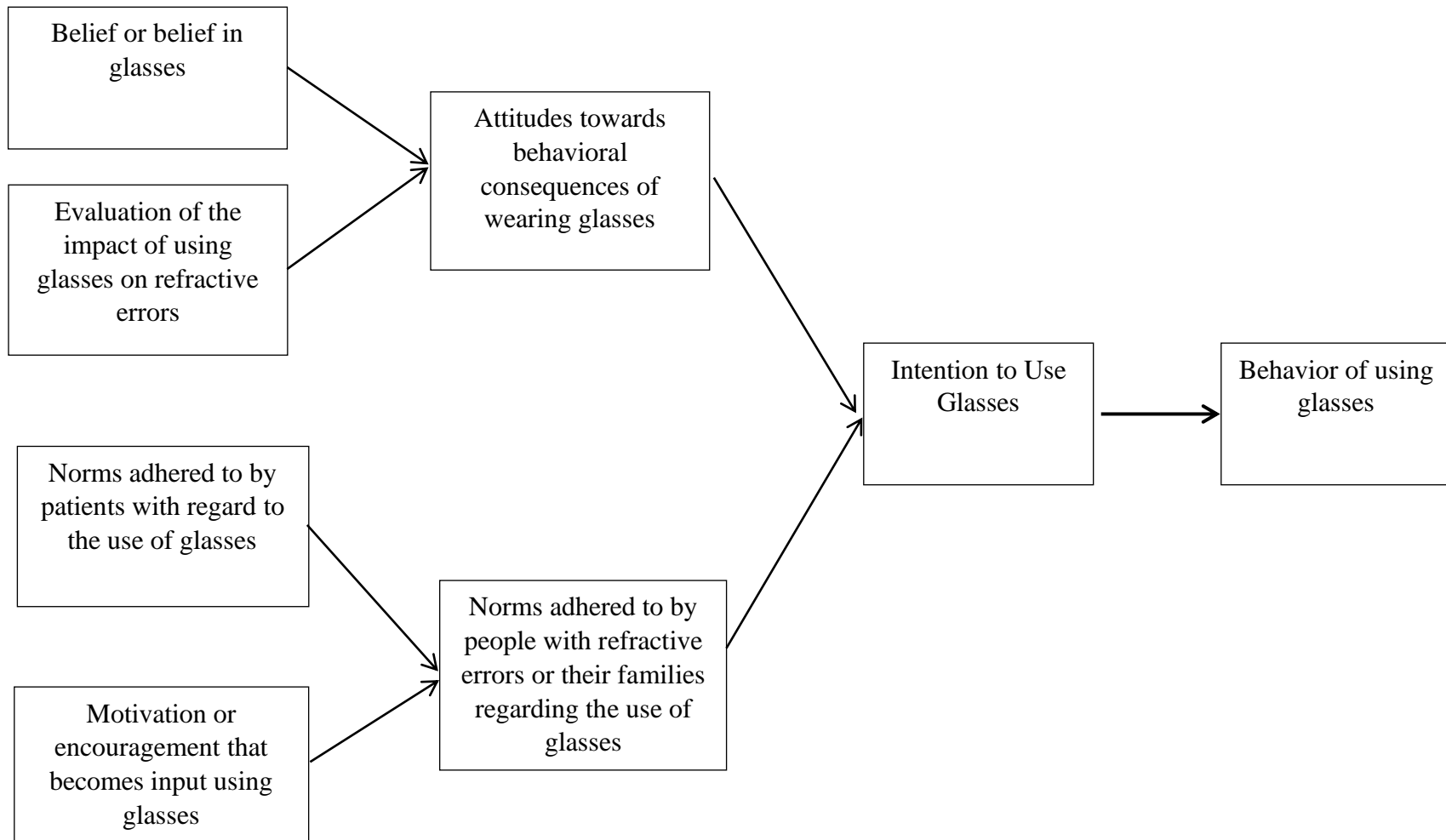


Figure 1 . Behavior of Using Glasses with Reasoned Action Theory Approach (TRA)

Based on the information and findings obtained from both individuals and Focus Group Discussions (FGD) and the development of the concept or theory of reasoned behavior, a conceptual framework for the use of Glasses Behavior with Reasoned Action Theory Approach is produced in Figure 1. In the framework, it can be seen that user behavior influenced by intentions, where intentions are also formed from attitudes towards the behavioral consequences of using glasses and the norms adopted by people with refractive errors or their families towards the use of glasses.

A. DISCUSSION

People with refractive errors will not be able to see perfectly without the help of glasses. Therefore, they need glasses and this will encourage the sufferer to seek and get glasses which can be used to achieve better vision. This is in accordance with the opinion of Foster and Anderson (2005) that human behavior is an impulse that exists in humans and this drive is one of the efforts to meet the needs that exist in humans and with this encouragement it causes someone to take a special action or behavior that lead to the goal.

And refractive error is one of the eye health problems. As a result, as an individual who has eye health problems, the individual will behave sick which is defined as any activity carried out by an individual who feels sick, in this case a refractive error, to find the right self-medication, namely through existing procedures in order to get glasses that fit the standard of health.

The theory of reasoned action is a theory that measures the influence of attitudes on actions and subjective norms concerning one's perception of one's intention to buy. Attitude is an individual's belief in an object. This attitude will lead to behavior, which measures the

extent to which behavior is sure or not sure, likes or dislikes. Attitude factors here are beliefs, knowledge, emotions, and behavior. So that this individual's attitude will affect his decision in buying intention. The more positive the individual's belief in the consequences of an object, the more positive the individual's attitude towards the object will be (Ackermann & Palmer, 2014, Prihapsara & Velayanti, 2017)

A study of mouthwash products found that subjective attitudes and norms had a partially positive effect on the purchase intention of mouthwash products (Prihapsara & Velayanti, 2017). This study also shows that the attitudes and subjective norms possessed by people with refractive errors towards glasses as a visual aid affect the behavior of buying and using the glasses.

Subjective norms and perceived harm from product use were significant determinants of intention, with the former being more important. Respondents who intend to use the product consistently ("intended") and those who do not intend ("non-intended") are equally motivated to comply with the wishes of their important referents (partners, close friends, parents and medical doctors) (Bosompra, 2001). And in this study, the use of glasses according to health standards is influenced by the norms believed to be related to the use of glasses and the motivation or encouragement from family or close friends as well as medical personnel.

Patients who believe that glasses are a necessity for clear vision aids and get the right input from their families and medical teams, then they will use glasses in accordance with health standards. However, in patients who have negative norms due to a myth in the family that says always wearing glasses will cause eye damage to get worse, then they don't use glasses properly or sometimes only for a while and prefer to let the eye damage get worse. Meanwhile, WHO (2019) stated that

glasses are a very useful intervention, because they do not eliminate or cure refractive errors by treating the cause, but are used to compensate for common refractive errors such as myopia, hypermetropia, and presbyopia.

CONCLUSION

Although glasses are a necessity for people with refractive errors, their usage behavior is influenced by the user's intentions. And the intention to get a vision aid to make it clearer is also influenced by the subjective attitudes and norms of the glasses user. Attitudes are formed from the beliefs or beliefs held about glasses and the evaluation of the use of glasses in helping the user's vision. Meanwhile, norms are formed from the norms that are believed to use glasses as a tool for refractive errors and motivation or encouragement from the closest people and medical personnel.

IMPLICATIONS

The implications for people with refractive errors are to increase knowledge and understanding of the use of glasses in the treatment of refractive errors, which are the controllers of the negative norms of the user so that the intention to overcome visual impairment and reduce eye damage can be carried out properly. Health workers are expected to contribute in providing information to rectify the myths that exist in the community regarding the use of glasses

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