

Spreading Rhinoplasty in Iran as a Social Phenomenon: Causes and Moderators in a Qualitative Study

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ABSTRACT

Objective: Rhinoplasty is common in celebrities all over the world but in Iran as many as 2,00,000 Iranian, mostly women undergo cosmetic surgery each year. Because of socioeconomic influence of rhinoplasty on individual's life, provocative factors of this issue may be discussable.

Aim: Our aim in this study was to find out causes of such interest in Iranian and investigate if there is a comprehensive behavioral model which could predict this phenomenon?

Methods: Qualitative approach was used. 33 individuals seeking rhinoplastic surgery have been involved in this qualitative research. They completed two questionnaires and 26 applicants whom didn't have psychological problems participated in semi-structural in depth individual interviews. Data collection followed by a conventional content theory and the analysis guided by thematic analysis. Demographic states were analyzed descriptively. Interviews transcripts were coded by MAXQDA version 11.

Results and Discussion: The leading cause of this behavior is divided into individual and social motivators. Individual motivators are attitudes about rhinoplasty consist of attaining beautiful appearance to attract men, feeling the need to change psycho social states and Social motivators are divided into subjective norms which are formed by observing significant others or direct encouragement by entourages and facilitating factors consist of media exposure and low cost of rhinoplasty in Iran.

Conclusion: By comparing and substitution these motivators in different health behavioral models, theory of planned behavior by emphasizing the interaction between personal determinants and situation as well as considering the role of facilitators and inhibitors factors in an intention represents appropriate model for rhinoplasty.

Keywords: Behavioral models, Rhinoplasty, Theory of planned behavior

INTRODUCTION

In the ancient literatures face has been considered the personification's of the soul. Every face has its own harmony that is made of its all components, but nose as the most prominent facial feature has an important role in this harmony and has been a side of interest from long time ago. People undergo cosmetic rhinoplastic surgery for different reasons; Physiological, ethnic, cultural and social reasons besides psychological problems promote them to change their faces by rhinoplasty. According to American Society for Aesthetic Plastic Surgery reports, cosmetic procedures increased by 147% from 1997 to 2009 in US [1]. In lack of reliable registration system for rhinoplasty applicants in Iran, there is no formal statistics of how many people do that type

of cosmetic surgery each year, but according to informal statistics such as Guardians, as many as 200000 Iranian, mostly women undergo cosmetic surgery each year to

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reduce the size of their noses and make the tip point upward to get “doll face” or Holly Wood celebrities’ attraction [2]. Iranian obsession with beauty, desire to achieve pretty faces to get social influence leads to highest rate of nose job all over the world these days [3]. Regarding to the trait of society, in which beauty is the most important factor for women to be selected, modification of one's appearance will be more dominant [4]. According to American society of plastic surgery, in 2013, 221000 of American people sought rhinoplasty with the prevalence of 69 per 100000 in general population; the average fee of rhinoplasty is near 4500 \$ US; whereas the average salary of American population is 50000\$ for each family per year [5]. Collected data from the main insurance organization database of Iran showed 180 per 100000 populations in Iran seek rhinoplasty every year [6]. These statistics are from insurance database while majority of cosmetic surgery was not supported by insurance. The minimum cost of rhinoplasty in Iran is approximately 20 million Rials equal to 700\$ US where the average salary of Iranian is 350\$ per month. A large number of researches works already shown that psychological factors are involved in individual desire for undergoing a cosmetic surgery [7-11]. Body dysmorphic disorder, depression, lower self-esteem, histrionic personality disorder and anxiety are some motivators that followed by psychological disorder [1]. Now it's argued that if Iranian people have higher level of psychological disorders genetically or some social factors affect this beauty obsession in Iran. Shulman et al. [12] survey among 5970 individuals applying for rhinoplasty during 1964 to 1997 revealed that motivational factors were divided into three categories: 1) Independent decision (54.5%); 2) Observation of previous patients (26.1%); and 3) External influences. In most cases, the desire for surgery had smoldered in them since adolescent, and they needed an external “OK” to have it done [12]. The influence of social acceptance of cosmetic surgery in someone's environment is one of the most important predisposing factors [13].

Behavior is the range of actions and mannerism made by individuals in conjunction with themselves or their environment, which includes the other systems or organisms around as well as physical environment [14]. There are many models and theories which different behaviors follow them. By supposing rhinoplasty as a behavior, find a behavioral model will guide both our current and future understanding about this behavior to provide direction to this behavioral change. Each behavioral model provides a specific road map to different aspects of a behavior. Although every map has its own territory, different theories describe the same territory differently. Redding et al said that when we enter new territory, we still need a map. Even a roughly drawn or poorly scaled map is much better than none at all [15]. Our aim in this study was to find out causes of such interest in Iranian and investigate if there is a

comprehensive behavioral model which could predict rhinoplasty in this society?

DESIGN

The participants were rhinoplasty applicants more than 18 years old who came to Imam Khomeini Hospital (a public general hospital in Tehran) and a private beauty clinic in Tehran. 33 applicants aged 18-40 in their last visit before surgery participated in the study. Verbal inform consent was recorded from all subjects and the information was treated confidentially before they play in interviews. They are adults more than 18 years old, without history of nose trauma, fraction and pathologic defects. Recent studies showed that psychological disorders motivate individuals to go under cosmetic surgeries. Body dysmorphic disorder (BDD), anxiety and depression are the most common [1]. Therefore, to achieve a behavioral model which represents tendency to rhinoplasty in normal population, in the present study, subjects completed two questionnaires: Hospital associated anxiety and depression scale (HADS) and revised Yale-Brown questionnaire for BDD and who with these disorders were excluded from the study.

HADS is a screening questionnaire of anxiety and depression consists of 14 questions, 7 related to anxiety and 7 related to depression. The break point of the scale for the diagnosis of anxiety and depression is to attain at least score of 8/21 for anxiety or depression (each question has 0-3 points) [16].

Yale-Brown is a self-assessment standardized instrument; consist of 12 questions scaling obsessive and compulsive disorder both in diagnosis and severity. Our revised instrument had 12 multi-part questions which could diagnose body dysmorphic disorder in applicants. The break point of this scale is 20 [11]. This questionnaire translated to Persian and validated to Iranian population by three psychiatry faculty members of Tehran University of Medical Science. The Cronbach's Alpha has been calculated 0.91 made the questionnaire reliable. Inform constant is gotten from all subjects orally and it is recorded in the interviews.

INTERVIEWS

26 applicants, whom didn't have psychological problems while the study was started, participated in the interviews. Each interview started with a trained interviewer that asked individuals for demographic states (age, marital status, education level and occupation).

The problem central interviews began with open questions to avoid leading the interview content. Then it continued with investigating questions to get more in details. Records were encoded at the end of the session to hide individuals' identity.

The following questions were asked:

- Why do you want to have rhinoplasty?

- What are your persuading and inhibiting factors to have rhinoplasty?
- Who or what are the most effective in your decision?
- How do you predict the result of rhinoplasty in your life?

At the end of the interview applicant receive a book as a gift for their participation.

DATA ANALYSIS

Demographic states were analyzed descriptively using SPSS 19 and it is showed in table 1. Interviews transcripts were coded by MAXQDA version 11. Each interview was coded separately. The interview implemented by two researchers and matched with the session transcript that is written by interviewer.

Categories and subcategories put together to extract main themes in coding. We used thematic theory. Data was collected till saturation happened in a point at which additional data didn't generate any new information or new coding. Finally the codes obtained thematic analysis put in different health behavioral models to achieve the model which rhinoplasty follows in Iran.

RESULTS

Demographic states of participants including age, marital status, education level and occupation showed in **Table 1**.

Table 1. Summary of participants characteristics (N=26).

N (%)	
Mean age	26.03
Marital status	
Single	21 (80.7)
Married	4 (15.3)
Divorced	1 (3.8)
Education	
High school	4 (15.3)
Associate's degree	2 (7.6)
Bachelor's degree or students of bachelor's degree	18 (69.2)
Master's degree	2 (7.6)
Occupation	
Unemployed	13 (50)
Employed	13 (50)

FINDINGS

All of the participants were in touch with one or more relatives or friends that they experienced rhinoplasty before.

By considering rhinoplasty as a behavior, the leading cause of this behavior is divided into 2 categories: Individual and social motivators.

Individual motivators

In this category, personal attitude was the most effective factor. Attitudes towards Rhinoplasty cosmetic surgeries are determined by some expectations about the outcome; these expectations were obtained from our participants.

Attaining beauty: Almost all of the participants expressed their main goal of rhinoplasty is getting on more beauty. In their opinion, breaking up with boyfriend because of less attraction than other girls, problem in starting a relationship, getting ridiculous by the others for shape of the nose, being ashamed of their faces when laugh or smile, improving their appearance to land better husband who is in better situation in addition to have better social life with a greater degree of self-confidence are key properties of their aim to be more beautiful.

Roghieh, 21 years old single woman said, "It's believable for me that someone with bad shape nose and ugly face has no chance, no attraction and no confidence to be in a relationship; it's really uncomfortable to deal with such people. I don't say everything is beautiful appearance but it's very effective in our relationships."

Fatemeh is another single participant said "In my relationship, I think I'm not as attractive as the other girls are. So I lost my boyfriend. This influenced on me a lot; depression, loss of self-confidence came to me. I know if I were more beautiful, I would be married now."

Reza, a 32 years old divorced man, said "I want to be more beautiful for myself. Every morning I wake up, I say to me "you must be more beautiful today". As a man the beauty is not my first priority but for the women it's different. In my opinion an ugly girl may have no choice for marriage. It's probable that a woman sells her kidney to get money for cosmetic surgery (laughing). It's so important for women how others think about them."

Feeling: The participants had different feelings about their decision to do cosmetic surgery; suffering from their noses and faces, perfectionism, loss of self-confident due to aging, feeling discontent, being honor of themselves after rhinoplasty led to feel the need to do it. Perfectionism was the feeling that only men wanted to overcome it with rhinoplasty. Mona a 34 married woman said "I felt like some changes in my face by ageing; I lost my self-confidence, picked on myself every day and ask why do I have a wrinkled skin, deformed nose, fatty abdomen, etc. while I could still look younger and prettier if I want."

Being in a good mood was the most common that was heard. Individuals seek their happiness and better psychosocial situation in rhinoplasty. Some sought for their appropriate surgeon with a special obsession; "surely I'll be the happiest if I like my nose after surgery. This is the ninth surgeon that I'm coming. I want the special nose; I want to be sure about the result of my surgery. I'm a bit worry about final shape. I

will be annoyed if it's not what I want"; Mohammad, an 18 years old single man continued "I feel like the greater degree of self-confidence. I'm ashamed of humiliation by my father, but I want to do that".

Getting divorced: Participants who had the experience of separating from their partners expressed their situation that led them to do cosmetic surgery; being in a better mood after divorce, get a chance of better marriage, losing their partner because of lacking attraction, omission the disagreement of the last spouse, were some of these personal motivators.

Reza said "I have thought about altering my face since five years ago. My ex-wife liked a lot to change my face. But after we were divorced, I'm spending more time for myself. I'm enjoying my beauty and upstanding".

Concealing their purposes: Men who underwent rhinoplasty didn't like to confess that they had done rhinoplasty as a cosmetic surgery. They said that their main motivators are some pathological disorder such as polyps, septum deviation and breathing problems. Deep interview defined that they thought that cosmetic surgery is for females and in our society context it is not appropriate for a man to do cosmetics.

Social motivators

The influence of social motivators in rhinoplasty behavior dedicated more themes than personal motivators and it can be divided into two categories: subjective norms and perceived behavioral control.

Subjective norms defined as the product of normative belief multiplied by motivation to comply. The subjective norms involve an individual's perception of what significant others believe about one's ability to perform the behavior. This significant others may be first degree relatives such as mother, sister or close friends, colleagues, etc. All of the rhinoplasty applicants had someone in their significant others who underwent rhinoplasty before. This provocative factor is either direct reinforcement by entourage or indirect motivation by observation of the others who had done it. "My friends told me I'll be more attractive after nose job. When the others wishes may come true, why shouldn't you? My friends are happy and satisfied about their appearances now. They have better social life and higher self-esteem as well." To define how following of a subjective norm happens, it's necessary to know its components. Subjective norms can be divided into 2 arms: normative beliefs and motivation to comply. Normative beliefs are perception of how much each personal contact approve or disapprove the behavior. Motivation to comply is ambition to do what each personal contact person wants. By this, an attitude and normative belief lead to rhinoplasty behavior.

Being encouraged directly by others who have done rhinoplasty and observing them indirectly, breaking up the

relationships, keeping up with Jones in women and girls, landing a better husband, better social acceptance of individual with improved appearance, supposing higher socioeconomic state after rhinoplasty and attraction for the opposite sex are extracted from our interviews. All of these themes can be included in a subcategory "the role of social acceptance in altering our faces by rhinoplasty."

In forming a social motivator something more than subjective norm is needed. Behavioral control involves facilitating or inhibiting conditions in making the performance of a behavior easier or more difficult. These themes were elicited from interviews.

FACILITATING FACTORS

Presence of many people in society who have done cosmetic surgery is a motivator for the others, which is compared to contagious fever; easy access to surgeons in every city and small town; encouragement by entourage directly and indirectly; persuading applicants by surgeons to have cosmetic surgery besides reforming septum deviations, removing polyps, etc.; taking advantages of developing science and modernity; low cost of surgery in public hospital; history of previous cosmetic surgery and role of media to persuade individuals for being more beauty facilitated their decision.

Media exposures

The participants were asked for the role of media including satellite, TV, cinema, journals and etc. in their decision. The answers are encoded in these 3 parts:

Satellite: Hope to attain "doll faces" to make them look like the celebrities whom they see in the satellite TV series, whereas the access to satellite or western TV is banned in Iran propelled them to rhinoplasty. "I want to have rhinoplasty to be similar to "Nahal", an actress in a Turkish TV series. She's really attractive for men and I want to look like her. It's the most important goal for me."

TV and cinema: This concept can be divided into two subcategories; first, the role of celebrities as significant others who can influence the fan's normative beliefs. Observation of their behavior makes the chance for others to follow. "When you see mostly all of your favorite actors who you love them and spend a lot of your time to follow them had rhinoplasty, you will want to do the same; actually they are our myths."

Second is related to impact of the program's concept on the decision: showing men's tendency to a beautiful girl with small and pointing to sky nose, mocking women with big and fat noses in films and series is the other aspect that reveals the role of media. I watched a TV series in the public Iran television last year that all of the men said to the girl "whatever you have money or not, you should have a rhinoplasty; even if you have to sell your kidney (in joking). You can obtain a bank loan." This was a comedy one, but it

affected me a lot. There is not emphasizing on your internal, spiritual value, you should be beautiful.

In the last recent years, the public TV network of Islamic republic of Iran have done some efforts to deter people from rhinoplasty by producing programs that showed the side effects of these cosmetic surgeries. When asked the participants if they watch these programs, all of them watched. These programs succeeded to postpone their decision in some cases but it could not powerful enough to prevent this behavior.

Journals: Journal advertisement about before and after surgery pictures have the type of effect that it can be considered as a think projection. Some participants said with these advertisements they disregarded what they watched in the inhibitory programs. "When I was at 12, I bought these journals every day and wished to do nose job someday": A 25 year old man said.

Cost

Costumers of rhinoplasty pay different costs for surgery depends on the surgeon's reputation, experience and the city in which they want to have surgery. Applicants said they have faced a wide range of fees. This variety of costs may provide different costumers with different socioeconomic states for nose job; an employee by gathering his/her salary for a few months can afford the fees. A type of attitude was extracted from the interviews that are represented in a subcategory of eligibility of all groups with every salary to do rhinoplasty. Some of participants said that cosmetic surgery is just only for propertied people in society and they have problems to supply this expenditure. They were not rich but they wanted to show themselves propertied. Participants believed if the cost of nose job increase every day, Iranian will submit to the great expenses voluntarily even if they have to obtain a loan to afford it. Saeed a 25 years old man said "we have caught nose job fever. It's not important for us how much does it cost. But appropriate fee in general hospitals provide a situation that everyone could afford it." Two of applicants lived in Sweden an Australia and said that they should pay a lot in their country therefore they came to Iran because of low price of surgery.

Uncertainty

Participants had some doubt that make them hesitant to do nose job; expensive fees, fearing of side effects of surgery and its anesthesia, concern about the result of surgery, family disagreement, living out of Iran, advertisements and programs in TV that showed side effects of surgery and busy working influenced on costumers and postponed their decision but it could not forbid them; All of these applicants were in the last visit before surgery.

DISCUSSION

The present qualitative study was carried out to determine different aspects that rhinoplasty behavior might follow it in

Iran. Findings showed that the intention to perform rhinoplasty is strongly related to these assumptions: attitudes, normative belief and facilitating factors. In the other word there are some social and individual motivators that actuate a decision to an act. Environmental and social factors are the key concept which operating as important determinants in this behavior. By comparing and substitution these motivators in different health behavioral models, Theory of planned behavior is the most matched models which predict this behavior. The main determinants of this theory are attitudes, subjective norms, perceived behavioral control. In the current study we tried to extend our finding in a parallel way into the appropriate theory. Following are our major determinants.

Attitude

Redding et al described attitude the product of behavioral belief multiplied by the evaluation of it. Attitude can be conceptualized in term of values [15]. It means by individual development particular values about behavior will be formed. How much better is an attitude for an intention, it will be more probable to turn into a behavior. All of the participants answered the first question in the interview that they were keen to undergo rhinoplasty themselves and the person him/herself played the main role in deciding to have operation. This finding that Iranian consider more value for their appearance is in line with last research works in this topic [4,17,18]. The specific pattern of behavior which represented in the modification of appearance by rhinoplasty is seen in this type of societies [19]. Iranian society after Saudi Arabians, are ranked the second largest consumers of cosmetic in Middle East and the seventh in the world [18]. This issue can support the asseveration that Iranian have great tendency toward desiring beauty. Iranian girls and women glorify the ability to attract men with better situation and they want to obtain this by improving their appearance. Due to Islamic regulation the desire of Iranian beauty limited in their faces as the rest of body is covered by Islamic veiling so Iranian girls display their art on their faces [3]. While in United States of America the most popular cosmetic surgery is breast augmentation. Different behavioral models described the influence of attitude in individuals' intentions such as Theory of planned behavior (TPB), BASNEF theory (beliefs, attitudes, subjective norms and enabling factors) and social cognitive theory (SCT). According to TPB one of three major variables influences on the intention to perform a behavior is attitude which was formed by two components: behavioral belief and evaluation of behavioral belief. Behavioral belief is evaluation of the likelihood that performance of the behavior is associated with certain outcomes [20]. Rhinoplasty applicants have some beliefs about the outcome: as a human nature, improving the appearance to have a beautiful face, effect on the mood to be happier, having greater degree of self-confidence are some of these beliefs. Evaluation of behavioral belief predicts how good or how bad those

outcomes would be [21]. Participants evaluated rhinoplasty as a way to attract men with better situation, better social life because of higher degree of self-confidence, improving their moods after getting divorced and gain a husband with their western look after the divorce. BASNEF theory has a similar description about the attitude. First structure in BASNEF is related to beliefs of the behavioral outcome and evaluation of those outcomes up to this phase of rhinoplasty behavior BASNEF and TPB can predict it [22].

Subjective norms

Subjective norms involve an individual's perception of what significant others believe about his/her ability to perform the behavior [15]. Expectation of entourage who live in the same environment and have close relationship with each other, have great influence of intention. Individuals need social acceptance and the others opinion to preserve their social relationships and deal with the others. According to TPB, subjective norms consist of two components; normative beliefs are situational based social expectations which are considered the rule [20]. It represents how much each personal contact approves or disapproves a behavior. The other component, motivation to comply, provides enough reason to follow a behavior. All of the participants had someone in their relatives who persuaded them directly or indirectly to have rhinoplasty. Their beliefs were under the influence of famous celebrities that individual put them as their myths. Celebrities in public television, cinema and satellite TV programs are the most effective motivators besides their relative. And motivation to comply this intention with an act were for beauty, stay in fashion, show off and better social acceptance. Impact of normative belief, environmental situation and social expectation showed in the previous studies. Shulman et al. [12] in their survey explained the external influence as a motivator to have a surgery. Their finding revealed that in most cases, the desire for surgery had smoldered in them since adolescence and they needed an external ok to have it done which is in line with our results [13,23,24]. In BASNEF theory, subjective norms are formed by normative beliefs that originated from normal social pressure or relative beliefs of significant others [22]. In Bandura's social cognitive theory, the relationship between behavior, person and environmental is interactive. One of the key concepts of SCT is environment and observational/experimental learning refers to acquisition of behavior through observation of another's performance of a behavior (modeling) or personal experience learning, i.e., trial and error [25]. These components of SCT may explain the rhinoplasty applicant's tendency to symbolization of celebrities or observation other's behavior which is called modeling. Although social cognitive theory is one of the most comprehensive models of human behavior yet proposed [26], it has some limitations. One of them is paying special attention to learning and more relation to behaviors which is formed from childhood and adolescence, whereas individuals undergo cosmetic surgery in adulthood.

In spite of this subject, because of important influence of environment on self-efficacy, we could not omit Bandura's social cognitive theory in predicting of rhinoplasty.

Perceived behavioral control

In definition, means the product of the control belief multiplied by the received power [15] and it involves two components, like the others. Control belief and perceived power. Control beliefs are assumptions about internal and external factors facilitate or impede an intention to be an act. Facilitative and disincentive factors had great influence on our findings. Previous studies emphasized on the role of psychological factors which facilitate the intention of rhinoplasty to behavior. Hassanpour et al. [11] indicated in a case control study that the patients seeking rhinoplastic surgery had shown cases of BDD incidence 11 times more. Fathololoomi et al. [27] findings revealed that prevalence of BDD and its concurrent anxiety and depression is higher than normal population which is in the line with the other study in Iran by Alavi et al. [28]. So, to achieve a normal population-based study we excluded individual with BDD, anxiety and depression to explore the influence of social facilitative and disincentive factors which predict the behavior. Not only environmental facilitative factors in this study were a motivator of participants to act a behavior after their intention, as if explained a catalyzer in BASNEF theory, but also, they are the first stimuli for think projection in someone's mind, that can be named as a behavioral executive arm. Media is an important part of social and cultural environment that can provide reinforcement for acting in a particular way. Journal advertisements and the other programs which glorify their beautiful actors, persuade people to seek for beauty directly or indirectly with their think projection. The other important factor is the money you pay for your beauty. The fees involved a wide spectrum from great expenses according to various factors such as surgeons, city and private clinics, to minimum approved fee in educational public hospitals; provide different socioeconomic levels in society to overcome the costs. The least cost of rhinoplasty in Iran equals to 700\$ of US while the average salary of Iranian worker in an urban area is 350 US \$. All of our participants believed that everyone can afford the cost of rhinoplasty because of different choices in selecting surgeons, hospitals, etc.

LIMITATIONS

The qualitative design of this study, allowed us to have in depth examination of different determinants to find out the behavioral model that it's been representative of rhinoplasty; but our survey was not out of limitations. We wanted to do our interviews in focused groups to interact better with the participants and also participants with each other. But our participants were not cooperative to take part in groups and the small sample size was not representative of the large population, so we carried out our study in individual in depth interviews. The other limitation is related to our analysis.

Loss of any primary idea about rhinoplasty as a behavioral model led to analysis of rhinoplasty behavior in thematic analysis. We did not have any frame to substitute rhinoplasty

in it and try different behavioral model in framework analysis.

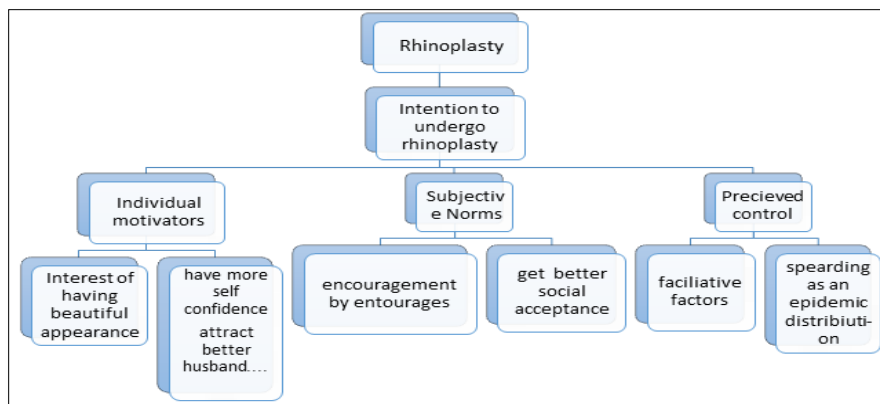


Figure 1. Algorithm of rhinoplasty in Iran.

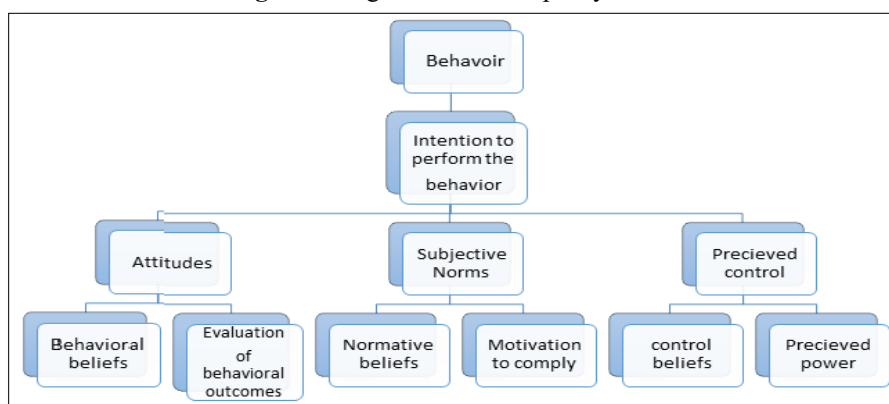


Figure 2. Theory of planned behaviour.

CONCLUSION

As shown **Figures 1 and 2**, theory of planned behavior by emphasizing the interaction between personal determinants and situation as well as considering the role of facilitators and inhibitors factors in an intention represents appropriate model for rhinoplasty. as an overlap between different models is inevitable, Baundura's social cognitive theory and BASNEF theory are not disregarded which represent clinical approach to health behavior change by emphasizing the influence of environment as the most effective component on the intention.

FUTURE RESEARCH

Since TPB has focused on prediction of behavioral intention rather than prevention, health promotion and modification of a behavior, it seems to need more future researches to sketch rhinoplasty in executable model like precede proceed model to find a way to change this behavior in Iranian society.

COMPETING INTEREST

The authors have no competing interest to report.

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