International Journal of Community Medicine and Public Health
Rusyantia A et al. Int J Community Med Public Health. 2023 Jan;10(1):29-37
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20223522

Original Research Article

Personal factors influencing the motivation to engage in healthy life behavior: a qualitative study among Indonesian obese adult women

Anggun Rusyantia[1,2], Ali Khomsan[1]*, Clara Meliyanti Kusharto[1], Hadi Pratomo[3]

[1]Department of Community Nutrition, FEMA, IPB University, Babakan, Dramaga, Bogor, Indonesia
[2]Department of Nutrition, Tanjungkarang Health Polytechnic Ministry of Health Republic of Indonesia, Bandar Lampung, Indonesia
[3]Department of Health Education and Behavioral Sciences, Faculty of Public Health, Universitas Indonesia, Depok, Indonesia

Received: 02 November 2022
Accepted: 12 December 2022

***Correspondence:**
Dr. Ali Khomsan,
E-mail: khomsanali@apps.ipb.ac.id

ABSTRACT

Background: As a part of social cognitive theory (SCT), personal factors can be potential mediators of behavior change. Knowing what motivates adult obese women to carry out healthy life behavior can help program planners develop intervention strategies to overcome obesity. This study examined the personal factors influencing obese women's motivation to adopt healthy life behaviors.
Methods: This descriptive-qualitative study was conducted from July to October 2021 in the city of Bogor, Indonesia. Participants were selected by purposive sampling from eight noncommunicable diseases (NCDs) posts (NCDs Posbindu). The data were collected using semi-structured, open-ended questions using a video conference platform. All the recorded interviews were transcribed verbatim. Thematic analysis with deductive coding (theory-driven) was used to analyse the data.
Results: A total of 26 obese women aged 19-40 were interviewed within eight discussion groups. Three theory-driven codes were chosen, and four themes were created from nine clustered codes of the transcripts: "health education and promotion," "the positive and negative impacts of eating healthy food and exercising regularly on the body and finances," "facilitators in eating healthy food and exercising regularly," and "barriers to eating healthy food, exercising and weight monitoring regularly". Lack of knowledge about weight management guidance, time and resources constraint, and low self-efficacy reduce motivation to continue an activity or target behavior.
Conclusions: Obese adult women need more weight-management knowledge, skills, and assistance using the concerned potential mediators. These findings could help program planners design effective health intervention strategies to achieve desired behavior change.

Keywords: Adult women, Healthy life behavior, Obesity, Personal factors, Social cognitive theory

INTRODUCTION

Obesity has become an epidemic issue at the global level.[1] Based on basic health research in Indonesia, the trend of obesity among adults in age >18 years old increased with a double prevalence from 2007 to 2018, with a higher prevalence in women. When this condition is not treated immediately, it will increase the risk of non-communicable diseases (NCDs).[2] To overcome obesity, an intervention to lifestyle change through improving eating behavior and physical activity proved to be a practical approach.[3] Individual or small-group approaches in the community are needed to increase healthy living knowledge and awareness. Therefore, further research on the motivation of individual behavior change is needed to combat obesity.[4] This study was part of formative

research to collect information before designing a behavior-based nutrition education intervention program for obese adult women in the city of Bogor, Indonesia. Culturally, women act as agents of well-being in their communities and play a role in regulating family health and lifestyle. It makes women the primary direct and indirect users of health services in the community.[5]

Inviting an individual to be involved in health behavior change is complicated. Thus, theory can be used to maximize the resources to achieve the desired behavior change.[6] According to theory, we could know more profoundly about the potential mediators of action or behavior change.[7] One of the theories that are commonly used in behavioral research is social cognitive theory (SCT) which significantly can improve eating habits and weight management in nutritional studies.[8,9] It also can provide a framework for designing physical activity behavior change interventions.[10,11] This theory emphasizes the ability to perform a health behavior that requires an individual who knows the health risk, trusts to take the right action, and sets goals.[7,12] SCT defines goal intention construct as long-term final values, such as wanting to be healthier or have a better quality of life.[7] In this study, goal intention was the internal motivation to live a healthy life. The preferred healthy behavior includes a healthy diet with balanced nutrition (low fat, salt, and sugar) and regular exercises concerning weight management in obese adult women.

The SCT consists of three reciprocal and interrelated primary constructs: personal, behavioral, and environmental. Personal factors are widely involved in regulating attention processes, schematic processing of experiences, representation and reconstruction of memory, cognitive-based motivation, emotional activation, psychobiological functions, and efficacy that shape behavior. The construct of personal factors in SCT involves individual thoughts and feelings, including knowledge, outcome expectations, self-efficacy, perceived impediments, and reinforcement.[12]

This formative study identified potential behavioral mediators from the personal factor's construct, such as beliefs, attitudes, perceptions, and self-confidence. By knowing the participants' potential personal mediators, program planners can plan strategies and experiential learning to ensure the effectiveness of nutrition education interventions. Therefore, this study explored personal factors that motivate Indonesian obese adult women to engage in healthy lifestyle behavior. The results can be used by program planners to develop behavioral intervention strategies for preventing obesity that is best suited to this target population.

METHODS

Study design and setting

The study used a descriptive-qualitative research design to understand the public perception of a matter which was conducted in eight NCDs post (Integrated Development Health Posts/Posbindu Penyakit Tidak Menular (NCDs)/NCDs Posbindu) targeting the City of Bogor, Indonesia.[13] NCDs Posbindu is a community empowerment-based activity that aims to monitor and detect early NCDs risk factors, one of which is obesity in adulthood.[14]

Study participants and sampling

A previous study analysis showed that four group discussions were sufficient to identify saturation.[15] In this study, 26 participants were purposively recruited. Furthermore, they were divided into eight discussion groups of 3-4 participants.

The inclusion criteria for people to participate in this study was women with age ranging from 19-40 years old, having body mass index (BMI) >25 kg/m^2, active and communicative, owning a personal device gadget (Android/iOs cellphone/laptop/notebook), and accustomed to using the video conference platform. The exit criteria were participant dissatisfaction and leaving the discussion.

Data collection tool development and technique

The group discussion was chosen to explore topics regarding participants' knowledge, opinion, feelings, and experience.[13] A semi-structured interview guide was used to collect data to ensure the discussion ran well. All authors prepared this interview guide, and face-content validation was carried out with experts from academic and healthcare providers from public health centers at the sub-district level. Due to the spread of the COVID-19 pandemic, the group discussion was held through electronic interviews using a video conference platform. Previously, the group discussion trial was conducted with a small-scale simulation to identify any practical problems and set the session's length of time and the interview media's suitability.[16] The trial was conducted on two groups of three and four obese female participants taken at two other NCDs Posbindu. The trial participants were selected by considering the characteristic similarities to the main study participants. The trial test results showed a need to fix some repeating questions in the obesity understanding and the risk factors of NCDs, clarifying confidence to eat a healthy diet regularly and barriers to healthy living behavior. The time estimation of the interviews was 65-80 minutes. There were no significant barriers during the trial test. The video conference platform could be used as a remote interview tool if supported by good internet quality.

The cadre, as the village volunteer who supported NCDs Posbindu activities, gave the short information about the study objectives and informed consent form during a home visit, and the participants kept it until the facilitator explained it when the session began. Next, the researcher added the participants' active cellular numbers to a

WhatsApp group to coordinate schedules and build rapport.

Interview process

Before the session, the facilitator asked the participants to sit comfortably and place the camera device at eye level with a distance of 50-100 cm. This would help the facilitator record the participant's expressions and gestures to see a deeper meaning. Participants were informed of the study's objectives, confidentiality code, and anonymity. They had been assured the right to withdraw during the study process when they felt uncomfortable without any consequences. Consent to participate in the study, including the video recording and photographing of activities, was obtained from each participant. Facilitator asked questions about participants' views of obesity and experiences in practicing a healthy diet and physical activity behaviors. The sensitive questions were asked when the atmosphere got more intimate, and participants seemed comfortable answering. At the end of the session, the facilitator summarized the discussion for group verification and provided an opportunity for correction. Participants were given internet quota reimbursement and a bag as a gift. The discussion was facilitated by one researcher from the health nutrition field who demonstrated experience in conducting qualitative research with the help of one assistant as a note taker. The interviews lasted between 45 and 75 minutes. The study was conducted from July 5-October 28, 2021.

Ethical consideration

This study was approved by the ethics committee of Tanjungkarang Health Polytechnic of the Republic Indonesia Health Ministry (229/KEPK-TJKIX/2021). To avoid transcribing linkages, a random alphanumeric code was given to each participant (e.g., P1 for participant 1, P2 for participant 2). All contents (video recordings and transcriptions) were saved on a password-protected computer.

Data analysis

Recordings and field notes were transcribed verbatim. Discussion with these eight groups had reached data saturation, so there is no need to add other groups. Data were analysed using thematic analysis with a deductive approach in coding (theory-driven). The steps of data analysis for this study were proposed by Fereday (2006).[17] A priori template (or codebook) was drawn from the theory's construct (SCT) and research questions in the first and second steps. Codes were written and identified by the code label (or name) from the SCT's personal construct, its definition, and a description of how to identify the theme. The development of these codes was discussed and agreed upon by all authors. The next step was to familiarize the data and identify initial themes. The audio was replayed as the transcript was read. Each transcription and the relevant critical points as a response to the facilitator's questions were highlighted. The fourth step involved the analysis of the text by applying the preliminary codes to identify meaningful text units. The data analysis continued by connecting the codes. This step involved identifying themes and patterns across the data related to the research questions. The process of further clustering the themes initially found in the coded text was demonstrated in the final stage.

Trustworthiness

This study used four trustworthiness criteria to evaluate the quality of the results.[13] Credibility was reinforced by the researcher's involvement in data collection, documenting interests and perspectives throughout the research process, and doing team discussions of findings. The codebook also supported the study's credibility by helping identify certain critical data and providing a clear research trail. To ensure dependability and eliminate subjectivity, all research members participated in the data analysis to ensure no data coding and themes were lost/missed. Creating an audit trail from notes and other field materials collected and stored throughout the research process increased the confirmability. Transferability was ensured by providing sufficient detail about the study context, participants, and findings.

RESULTS

The demographic information of the study's participants is presented in Table 1. The three dominant personal mediators from SCT were chosen as theory-driven codes.[12] Nine clustered codes influencing the motivation to behave in a healthy life were then grouped into four themes as follows: 1) health education and promotion, 2) the positive and negative impacts of eating healthy food and exercising regularly on the body and finances, 3) facilitators in eating healthy food and exercising regularly, and 4) barriers to eating healthy food and exercise regularly (Table 2).

Table 1: The demographic characteristics of the participants (n=26).

Characteristics	Frequency (%)
Age group (years)	
Emerging adulthood (19-25)	8 (30.77)
Young adulthood (26-40)	18 (69.23)
Marital status	
Married	23 (88.46)
Single	3 (11.54)
Level of education	
Under senior high school (<12 grade)	9 (34.62)
Senior high school and upper	17 (65.38)
BMI (kg/m^2)	
Overweight (25-27)	7 (26.92)
Obesity (>27)	19 (73.08)

Table 2: The themes are based on the theory-driven approach.

Research question (RQ)	Theory-driven codes	Explanation of codes	The clustered codes from text	Themes
RQ 1: What do they already know about the term obesity, healthy diet, physical activities, and the government program to prevent obesity?	Knowledge	Information and skills acquired through experience or education of a subject	**Obesity: definition, risk factors and consequences** Many factors can cause obesity Impact obesity on health **Lack of knowledge in weight management** Misconceptions about the definition of physical activity and exercise Experience in following fad diets A clear explanation of calculating and interpreting the obesity scale and how to weigh is needed. The need for a place or health education class to consult **Lack of knowledge of the government's program** Do not know the government's guidance for obesity Ignorance of NCDs Posbindu activities/programs	Health education and promotion
RQ 2: What personal beliefs and attitudes do the intended audience possess that would motivate them to take action in engaging in healthy life behavior?	Outcome expectation	Beliefs about anticipated outcomes from engaging in healthy life behavior regularly (healthy diet and exercise)	**Physical outcomes** Make the body healthy and slim Regular exercise keeps the body healthy, fit, and body slim **Financial concern** Cooking healthy food is more economical Joining sports classes and equipments requires an additional fee Watching online video need additional funds to buy internet quota Many types of sports that are free do not cost anything	The positive and negative impacts of eating healthy food and exercising regularly on the body and finances
RQ 3: What are the participant's perceptions of abilities and barriers to taking the desired health actions?	Self efficacy	The confidence to carry out the intended behavior successfully or overcome the barrier to engaging in the behavior	**Access and personal skills** Ability to cook food healthily at home and use healthier ingredients Perceived access to buy healthy food **Support system and access** Support from closest people Rewards Exercise activities near home Easy video access from the internet **Hedonic responses from the environment and domestic responsibilities** The street food temptation at affordable prices Buying snacks (high food density) when stressed and tired Children's leftover food that does not run out **Bad experiences after doing the exercise, domestic responsibilities, and stigma** Body aches after exercising Easy to feel tired The busy domestic responsibilities and take care of children Financial barriers	Facilitators in eating healthy food and exercise regularly Barriers to eating healthy food and exercise regularly

Health education and promotion

When asked, "What is obesity?" and "What are the factors that cause obesity and its impact on health?" all participants stated that obesity was excessive body fat. Excess food consumption, lack of movement, family history, and hormonal factors were repeatedly mentioned as the leading factors to obesity which increased the NCDs risk and poor quality of life.

"Inactivity and overeating, especially fatty foods, cause obesity and NCDs. Taking contraceptives and having a family history may also be factors… We could not breathe smoothly because our bodies are obese." (P10)

The discussion revealed a lack of knowledge about the definition of physical activity and exercise and how to weigh properly. Participants also followed fad diets to lose weight, which they admitted was unhealthy and could not become a daily habit.

"*…after cleaning the house, my body sweats, which was the same as physical exercises. (P8)*

"The numbers were always changing, when I weighed 78 kg in the morning, it would be 79 kg tomorrow night, and it would be different the next morning. I am confused about how much I actually weighed." (P22)

"I had only been drinking water, added with a few squeezes of lemon, avoiding carbohydrates, and eating lots of fruit and vegetables … I lost weight, but my stomach hurt until I was hospitalized. (P12)

The lack of knowledge about the government's guidance for tackling and preventing obesity, including interpreting their nutritional status using the BMI score category, emerged from the discussion.[14]

Most participants also admitted that they did not know their age category was included in the NCDs Posbindu program. The need for additional information on proper weight management and how to do a healthy life as a habit emerged from all participants in all discussion groups.

"I didn't know my nutritional status, but I knew I'm obese from my appearance. I had never heard of the recommendation of a T-style plate from the government, and how long I had to exercise per day to lose weight; what kind of exercise?" (P1)

"I had never been to NCDs Posbindu because this place was only for the elderly." (P2)

"There was already much information on weight loss diets, but I didn't know which one was correct. I wish there would be a place to consult, did we eat properly or not?" (P25)

The positive and negative impacts of eating healthy food and exercising regularly on the body and finances

This theme explored participants' beliefs about healthy eating and exercise. All participants agreed that eating healthier was beneficial. By cooking healthy food at home, they could save on household expenses.

"Healthy food helped us lose weight and stay healthy. It was better to cook by yourself. Cooking for the whole family at once was cheaper than buying from a food stall." (P4)

All participants in all discussion groups saw a benefit (positive consequence) from regular exercise. Some participants identified negative financial consequences. Others gave contradictory opinions. They proposed that some of the sports should be free, and equipment found at home should be used to reduce costs.

"A fit and healthier body and being able to lose weight was the benefit if we did exercise regularly. But, we need to buy some equipment and pay for classes to do the proper exercise." (P20)

You don't have to pay; jogging in the morning, it's free. You don't have to buy equipment. I've seen someone who used a bottle of mineral water filled as a weight lift. (P7)

Facilitators in eating healthy food and exercising regularly

Several participants are confident in developing healthy eating habits because they had the ability to cook and can choose healthier ingredients.

"I'm sure I could eat healthy food if I cooked it myself and not using too much oil." (P3)

The perception of easy access to healthy food ingredients in food stalls near their house and a variety of vegetables and fruits could help most participants build healthy eating habits. Few participants disagreed about this perception.

"I rarely buy and cook healthy food at home because there weren't many fruits and vegetables near my house, so I had to go to the market." (P21)

When probed with the question, "Is the market far from your house?" she answered, "Yes, but you could take one public transportation trip." It showed that the distance constraint to get a variety of healthy food ingredients could be minimized, but the participants had not done it well.

Sports activity groups held by village officials, the support from their closest family and friends, and rewards were forms of social support that encouraged most participants to exercise regularly. Easy access to online

exercise videos became another form of facilitator expressed by some participants in all group discussions.

"I sometimes invited friends to exercise together using videos on YouTube. My husband praised me when he saw me exercise diligently and bought me clothes for exercise, making me more enthusiastic." (P26)

"There were usually exercise activities held by Puskemas (public health centre) for free." (P13)

Barriers to eating healthy food and exercising regularly

Almost all participants admitted having trouble avoiding unhealthy foods. Temptations for unhealthy snacks at low prices and food delivery were also barriers. Eating delicious food with high sugar and fat was one of the choices of participants in the six discussion groups, especially when stressed and tired. In addition, the habit of finishing the children's leftovers was another barrier.

"Every day I bought meatballs from the seller who passed by in front of my house; it was cheap and delicious." *(P2)*

"When I had many problems, I ordered snacks like doughnuts and boba drinks from a food courier platform… My children did not finish their meals, so I must finish it, too bad if it's wasted." (P9)

The perception of being busy as a housewife with many domestic responsibilities while accompanying their children in online school during the COVID-19 pandemic hindered most participants from building healthy eating habits regularly.

"I knew we must eat healthily during this pandemic, but I didn't have time to cook and shop because I had so much to do at home with my two online-schooling kids." (P14)

All discussion group participants also lacked the confidence to exercise in some conditions. Body aches and pains after exercising and the perception of being busy as a housewife with domestic responsibilities during the COVID-19 pandemic were also barriers.

"Once walked 10 thousand steps, and the next day I couldn't stand up, so I didn't start again." (P16)

"When you were done cleaning the house, you were tired, plus, you had to teach your children to study at home during the pandemic, so to do the exercise was tiresome." (P19)

Unable to pay for fitness classes and buy exercise equipment were two barriers in the three discussion groups. Limited quotas were also a barrier in the five discussion groups.

"Offline classes costs per visit. We also needed fitness equipment, such as dumbbells. Watching sports videos on YouTube also needed internet quota. I had better use this for online schoolchildren." (P18)

DISCUSSION

This study examined person-related (personal) factors influencing obese women to engage in healthy lifestyle behavior. Knowledge creates beliefs about action consequences from certain health information, which form intentions to act. Individuals with good health knowledge will take better disease prevention actions.[18] All participants were knowledgeable about the causes and risks of obesity. However, their knowledge of assessing and interpreting BMI categories for nutritional status is lacking. Our findings matched a cross-sectional study in Ghana that found most participants demonstrated good knowledge about obesity (72.0%) but insufficient knowledge about ideal body weight (4.2%).[19] Likewise, all participants did not understand the government's guidelines for tackling obesity based on balanced nutrition (T plate model), which recommended low dietary energy density and physical activity in Indonesia. These findings confirmed the same results of an Indonesian study that found obese adult women had moderate to low knowledge about balanced nutrition.[20] Participants recognized fad diets as a way to lose weight, but it was not expected as a habit and affected their health. Fad diets exhibit unsustainable nature and could result in adverse health effects.[21] In the city of Malang, Indonesia, 69.0% of respondents followed fad diets, which resulted in nutritional sufficiency due to improper food selection and psychological factors.[22]

Knowledge could be the basis of the outcome expectation variable in mediating the effect of self-efficacy on expected behavior. Eating behavior was influenced by psychosocial factors besides knowledge. This study found that most participants needed health education and more intensive government program information. Therefore, a need exists to demonstrate nutrition education that could facilitate behavior by focusing on personal motivation and competence, interpersonal interactions, and environmental factors.[7] Nutritional intervention studies emphasizing self-efficacy and outcome expectations were more likely to improve healthy eating behavior.[23]

Our findings suggested that all participants demonstrated positive and negative impacts of healthy eating and exercise on the body and finances. However, limited resources to learn and develop skills can be a factor. Negative expectations about financial consequences could limit healthy life behavior. In this case, it was intensely explored in the motivation to do the exercise regularly. Without the expected benefit, health behavior would decrease. Outcome expectations fulfillment predicted successful and unsuccessful physical activity rates. Self-efficacy would be involved.[24] Socio-economic challenges which result from resource constraints were the key barrier to the effective implementation of health

education programs in low-middle-income countries. Adequate allocation of limited resources is required.[25]

Some facilitator perceptions and barriers were personal and became integral to the self-efficacy assessment.[26] Most participants had healthy cooking self-efficacy and easy access perception to grocery stores. The roles of participants in their daily activities may underlie the results of this study. Most participants in this study were housewives, who were traditionally dominating the social roles of the woman, including cooking.[27] Regarding facilitators engaging in exercise activities, support from the closest family/friends could increase participants' self-efficacy. This finding was associated with a systematic review and meta-analyses from 58 papers which showed that planning social support/social change from others can significantly increase self-efficacy for physical activity in obese adults by helping them feel supported during exercise. It was part of behavior change techniques (BCTs) to improve the behavioral mediators and facilitate behavior change in intervention programs.[28] A need for a reward perception as a facilitator also exists. In SCT, a reward was a form of reinforcement of incentive motivation, which operated through outcome expectations.[12]

However, clustered text results showed twice as many barriers as facilitators and appeared as the fourth theme. Almost all barriers to eating healthy food were hedonic responses, called hedonic hunger, caused by an obesogenic environment with affordable, high-energy foods.[29] Rabiei et al found that obese women had higher hedonic hunger, leading to unhealthy food choices and diets.[30] Domestic responsibilities also came up in the group discussion. The COVID-19 pandemic has closed schools and kept everyone home. The feeling of not being able to buy and cook healthy food made them not confident to able to eat healthy food regularly. Similarly, eleven mothers in England faced the same problem during the COVID-19 pandemic. Even if parents were knowledgeable and motivated, time, resources, and environmental stressors made this problematic.[31]

Most participants in this study had low self-efficacy in regularly exercising. Fatigue and aches after exercise made them give up on doing more the next day. Many domestic jobs at home made them too tired to exercise regularly. The decreasing agency was one of the unfavorable consequences of obesity. When an individual agency is weakened, one cannot decide to do their activities properly due to boredom and fatigue.[32] Self-efficacy was built from previous achievements. Failure leads to despair, which causes the person to quit the activity.[33] In activities requiring strength and stamina, fatigue, aches, and pains were indicators of low self-efficacy.[12]

All personal factors from our findings were related to shaping behavior.[7,12] It strengthens our analysis that personal factors were interrelated and contributed to healthy behavior. Knowledge would help humans control, change, and create a supportive environment. However, time and resource constraints would limit acquiring knowledge and skills for the expected behavior. Expected outcomes regulate human motivation and behavior. The person would be willing to perform and maximize her benefits with a positive outcome. Low perception of the ability to achieve outcomes reduced motivation to continue an activity or behavior.[12]

Some facilitators' perceptions of potential mediators among study participants could be used to design BCTs-based intervention programs. As a part of the BCTs, reinforcement of incentive motivation from this study (rewards and social support) helped improve behavioral mediators and facilitated behavior change in intervention programs.[34]

Strength and limitations

To the best of our knowledge, this was the first qualitative study to explore personal factors in SCT that motivated obese adult women in Indonesia to adopt healthy lifestyle behaviors. Personal factors were the only SCT construct observed in this qualitative study. Other factors, behavioral and environmental, were not discussed and needed further examination. These findings also did not aim to generalize to target groups in other regions due to population differences. Electronic interviews could reduce participants' attention and concentration due to distractions and lack of access to nonverbal reactions, which might affect the data collection results. It could be minimized by explaining the research procedure in detail a few days before the discussion session begins.

CONCLUSION

This study identified personal knowledge, facilitators, and barriers to healthy living behaviors. Program planners who would develop health intervention strategies for this target group need to provide education and assistance for proper healthy eating and exercise; consider the positive and negative effects of a healthy diet and regular exercise on the body and finances by emphasizing personal skills and facilitating support systems and access. Interventions should also increase eating awareness to inhibit hedonic responses. Behavioral theory using the proper selection of BCT could guide program planners develop nutrition education interventions that would achieve the desired behavior change.

ACKNOWLEDGEMENTS

Sincere gratitude is given to community members and the stakeholder of the health facility office of the city of Bogor who were willing to participate in this study.

Funding: No funding sources
Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee of Tanjungkarang Health Polytechnic of the Republic Indonesia Health Ministry (229/KEPK-TJKIX/2021)

REFERENCES

1. WHO. Obesity and Overweight. 2021. Available from: https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight. Accessed on 1 December 2021.
2. Hruby A, Manson JAE, Qi L, Malik VS, Rimm EB, Sun Q, et al. Determinants and consequences of obesity. Am J Public Health. 2016;106(9):1656-62.
3. Elvsaas IKØ, Giske L, Fure B, Juvet LK. Multicomponent lifestyle interventions for treating overweight and obesity in children and adolescents: a systematic review and meta-analyses. J Obes. 2017;2017:1-14.
4. Chan RSM, Woo J. Prevention of overweight and obesity: How effective is the current public health approach. Int J Environ Res Public Health. 2010;7(3):765-83.
5. Camussi E, Sassi C, Zulato E, Annovazzi C, Ginevra MC. Hacking women's health: A new methodology. J Prev Interv Community. 2019;12:174-88.
6. McKenzie JF, Neiger BL, Thacekry R. Planning, implementing, and evaluating health promotion programs. 6th edn. United States of America: Pearson Education, Inc.; 2013.
7. Contento IR. Nutrition education: linking research, theory, and practice. 2nd edn. Canada: Jones and Bartlett Publishers; 2011.
8. Bagherniya M, Sharma M, Mostafavi Darani F, Maracy MR, Safarian M, Allipour Birgani R, et al. School-based nutrition education intervention using social cognitive theory for overweight and obese Iranian adolescent girls: a cluster randomized controlled trial. Int J Community Health Educ. 2018;0(0):1-9.
9. Rusyantia A, Khomsan A, Kusharto CM, Pratomo H. The integrated nutrition education on ehealth intervention and its effectiveness on improvement of anthropometric status and behavioural outcomes of obese adults: a systematic review. Amerta Nutr. 2022;6(2):212-26.
10. Young MD, Plotnikoff RC, Collins CE, Callister R, Morgan PJ. Social cognitive theory and physical activity: a systematic review and meta-analysis. Obes Rev. 2014;15(12).
11. Joseph RP, Ainsworth BE, Mathis L, Hooker SP, Keller C. Utility of social cognitive theory in intervention design for promoting physical activity among African-American women: a qualitative study. Am J Health Behav. 2017;41(5):518-33.
12. Bandura A. A social cognitive theory of personality. In: Pervin IL, John O, eds. Handbook of personality. 2nd edn. New York: Guilford Publications; 1999: 154-196.
13. Tolley EE, Ulin PR, Mack N, Rpbinson ET, Succop SM. Qualitative methods in public health: a field guide for applied research. 2nd edn. United States of America: Jossey-Bass and Pfeiffer Imprints, Wiley; 2016.
14. Indonesian Ministry of Health. GENTAS Implementation Guide. Jakarta; 2017.
15. Hennink MM, Kaiser BN, Weber MB. What influences saturation? Estimating sample sizes in focus group research. Qual Health Res. 2019;29(10):1483-96.
16. Hurst S, Arulogun OS, Owolabi AO, Akinyemi R, Uvere E, Warth S, et al. Pretesting qualitative data collection procedures to facilitate methodological adherence and team building in Nigeria. Int J Qual Methods. 2015;14:53-64.
17. Fereday J, Muir-Cochrane E. Demonstrating rigor using thematic analysis: a hybrid approach of inductive and deductive coding and theme development. Int J Qual Methods. 2006;5(1):80-92.
18. Rincón Uribe FA, Godinho RC de S, Machado MAS, Oliveira KR da SG, Neira Espejo CA, de Sousa NCV, et al. Health knowledge, health behaviors and attitudes during pandemic emergencies: A systematic review. PLoS One. 2021;16(9):1-14.
19. Obirikorang Y, Obirikorang C, Anto EO, Acheampong E, Dzah N, Akosah CN, et al. Knowledge and lifestyle-associated prevalence of obesity among newly diagnosed type II diabetes mellitus patients attending diabetic clinic at Komfo Anokye Teaching Hospital, Kumasi, Ghana: a Hospital-Based Cross-Sectional Study. J Diabetes Res. 2016;2016:1-10.
20. Nai HME, Lubijarsih MA. The differences in knowledge of balanced nutrition between obese and non-obese women in rural area. J Kesehat. 2021;10(1):33-43.
21. Khawandanah J, Tewfik I. Fad diets: lifestyle promises and health challenges. J Food Res. 2016;5(6):80.
22. Vidianinggar M, Mahmudiono T, Atmaka D. Fad diets, body image, nutritional status, and nutritional adequacy of female models in Malang city. J Nutr Metab. 2021;2021:1-5.
23. Anderson ES, Winett RA, Wojcik JR, Winett SG, Bowden T. A computerized social cognitive intervention for nutrition behavior: direct and mediated effects on fat, fiber, fruits, and vegetables, self-efficacy, and outcome expectations among food shoppers. Ann Behav Med. 2001;23(2):88-100.
24. Klusmann V, Musculus L, Sproesser G, Renner B. Fulfilled emotional outcome expectancies enable successful adoption and maintenance of physical activity. Front Psychol. 2016;6(1990):1-10.
25. Pierre G, Dzinamarira T. A scoping review on barriers to implementation of health education programs in low to middle income countries. Int J Community Med Public Health. 2019;6(8):3651-9.

26. Bandura A. Health promotion by social cognitive means. Heal Educ Behav. 2004;31(2):143-64.
27. Sekścińska K, Trzcińska A, Maison DA. The influence of different social roles activation on women's financial and consumer choices. Front Psychol. 2016;7(365):1-13.
28. Olander EK, Fletcher H, Williams S, Atkinson L, Turner A, French DP. What are the most effective techniques in changing obese individuals' physical activity self-efficacy and behaviour: a systematic review and meta-analysis. Int J Behav Nutr Phys Act. 2013;10(29):1-15.
29. Lowe MR, Butryn ML. Hedonic hunger: a new dimension of appetite? Physiol Behav. 2007;91(4):432-9.
30. Rabiei S, Sedaghat F, Rastmanesh R. Is the hedonic hunger score associated with obesity in women? A brief communication. BMC Res Notes. 2019;12(1):10-3.
31. Porter L, Cox JS, Wright KA, Lawrence NS, Gillison FB. The impact of COVID-19 on the eating habits of families engaged in a healthy eating pilot trial: a thematic analysis. Heal Psychol Behav Med. 2022;10(1):241-61.
32. Irandoost SF, Taghdisi MH, Dehdari T, Bayangani B, Azadi NA. Obesity consequences from the people's perspective living in Kurdish regions of Iran: a qualitative content analysis. Seyed J Educ Health Promot. 2019;8(159):1-10.
33. Meadows A, Bombak AE. Yes, we can (no, you can 't): weight stigma, exercise self-efficacy, and active fat identity development. Fat Stud. 2018;1-19.
34. Michie S, Ashford S, Sniehotta FF, Dombrowski SU, Bishop A, French DP. A refined taxonomy of behaviour change techniques to help people change their physical activity and healthy eating behaviours: The CALO-RE taxonomy. Psychol Health. 2011;26(11):1479-98.

Cite this article as: Rusyantia A, Khomsan A, Kusharto CM, Pratomo H. Personal factors influencing the motivation to engage in healthy life behavior: a qualitative study among Indonesian obese adult women. Int J Community Med Public Health 2023;10:29-37.