

## Research Article

# The Application of Mindful Eating to Improve Healthy Eating Behavior Among PKK Mothers

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**Abstract.**

Unhealthy eating behavior patterns are a major contributor to health problems. This research aims to determine the effectiveness of mindful eating interventions, a technique promoting full awareness during food consumption, to improve healthy eating behavior among PKK mothers in Village X. The research employed a psychoeducational approach through an experimental method with a one-group pre-test - post-test design. The subjects involved were 27 people, all of whom were female and were members of the PKK X Village. Data analysis in this study used nonparametric statistics with the Wilcoxon Signed Ranks test. The results of this study show that mindful eating intervention through a psychoeducational approach has been proven to improve healthy eating behavior among PKK mothers in X Village. This study suggests that mindful eating interventions can improve awareness of food consumption and encourage the formation of healthy eating habits among PKK mothers.

**Keywords:** mindful eating, psychoeducation, healthy eating behavior, mothers, PKK

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**Published:** 8 November 2024

Publishing services provided by Knowledge E

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Selection and Peer-review under the responsibility of the ICoPsy 2024 Conference Committee.

## 1. Introduction

The problem currently being experienced by residents of Village X in Sidoarjo is health issues. Diabetes is a disease that dominates among the majority of Village X residents, and is followed by gout, cholesterol and hypertension. One of the findings shows that female residents with the profession of housewives, both in the adult and elderly age groups, are the ones who experience diabetes the most when compared to the male adult and elderly age groups. PKK of Village X is a community that has many members from mothers of Village X residents who suffer from several of the diseases above.

Based on the results of the assessment, the issue of health problems is caused by unhealthy eating behavior patterns. Many PKK mothers consume excessive portions of white rice, compared to fish or side dishes. They think that consuming large amounts of white rice feels more filling. Apart from that, they also like to consume fried foods (gorengan), eat unhealthy food and excessively drink sweet drinks. This situation is



also supported by the habit of the residents of Village X that serves fried food (gorengan) and sweet drinks which are filling and have an economical price, whether during social gatherings (arisan), visiting neighbors homes or getting deliveries from neighbors. This condition is not balanced by consuming healthy food that contains nutrients and vitamins.

Apart from that, several other things that cause the emergence of the various diseases above also come from unhealthy activity patterns and a history of hereditary diseases. Most PKK mothers spend more time at home lazing around and rarely do regular sports activities. On the other hand, there are many PKK mothers who have inherited genes for various diseases inherited from their parents or previous generations.

Mindful eating an intervention technique that will be used as an effort to improve healthy eating behavior among PKK mothers of Village X. Mindful eating can be described as the practice of eating mindfully by maintaining full awareness when consuming food and drink.

Research conducted by Jordan, Wang, Donatoni & Meier succeeded in proving that mindful eating can encourage someone to manage their weight and have healthier eating habits [1]. Healthy eating habits lead to a person's tendency to control their eating behavior, such as awareness of reducing excessive food calories and avoiding the habit of eating spontaneously, awareness of choosing healthier snacks (such as choosing fruit rather than artificial sweet snacks) to consume. Apart from that, Oraki & Ghrohani also found that mindful eating can reduce stress levels and body mass index in women who are overweight [2]. Mindful eating can also be used as effective psychological training in improving a person's beliefs, health behavior and quality of life. Nakamura, Akamatsu & Yoshiike also managed to find a positive relationship between a mother's application of mindful eating and a child's eating behavior [3]. This certainly shows that it is hoped that mindful eating can be a way to build healthy eating behavior from an early age and help reduce or prevent the occurrence of health problems from an early age in Village X.

Based on this background, it is known that mindful eating is an alternative intervention that has been proven to be effective in increasing healthy eating behavior. Therefore, researchers are interested in finding out the effectiveness of providing mindful eating interventions through a psychoeducational approach as an effort to increase healthy eating behavior among PKK mothers in Village X.

## 2. Literature Review

### 2.1. Eating Behavior

Eating behavior is the thoughts and actions that influence a person to consume food (both solid and liquid) [4]. Eating behavior can also be interpreted as activities that influence the relationship between humans and food, including the amount of food and type of food consumed as well as the feelings formed in relation to food [5]. Strein et al explain that eating behavior consists of three theories, firstly is emotional eating, when a person uses food to overcome negative emotions rather than to satisfy hunger; secondly is external eating, occurs when there is an increase in a person's food intake due to external food stimulation which includes the sight, smell and taste of food, regardless of the state of psychological hunger and fullness (internal factors), and thirdly is restrained eating, a person's behavior to consciously reduce food intake which can cause excess weight [6].

### 2.2. Mindful Eating

In terms of terminology, mindful eating comes from English which consists of two words, namely "mindful" which means full attention and "eating" which means eating. Initially, mindful eating was a mindfulness-based approach used to treat someone who was experiencing an eating disorder. Framson et al define mindful eating as full attention or awareness both physically and emotionally without providing judgment or judgment while eating in eating activities [7]. Mindful eating can also be interpreted as an individual's ability to present feelings and thoughts in eating activities, remember them, pay attention to what they eat (texture, color, taste) and also know when these feelings or thoughts are diverted to other things [8]. Essentially, mindful eating is the application of mindfulness techniques involving thoughts, emotions, body sensations and behavior related to eating activities [9].

### 2.3. Psychoeducation

Psychoeducation is a form of education or training for someone aimed at a therapy and rehabilitation process [10]. Psychoeducation can also be interpreted as an intervention given to a person or group with the aim of focusing on providing education about

challenges in life, providing sources of support and improving coping skills in order to prepare oneself to face challenges [11]. Bordbar & Faridhosseini explained that psychoeducation aims to develop and increase a person's acceptance of the disease or disorder they are experiencing, increase a person's participation in the therapy process, and develop coping mechanisms when a person faces problems related to the disease [12].

### 3. Method

This research uses an experimental method with a one group pretest-posttest design. The subjects involved were 27 people who were members of the PKK mothers community Village X with an age range of 37-65 years. Data collection was carried out through observation, interviews and pretest and posttest scales. Intervention is provided in the form of psychoeducation regarding providing material, practice and filling in worksheets. The research results were obtained from the answers given using pretest sheets (before the subjects were given the intervention) and posttest (after the subjects were given the intervention). The data analysis technique used in this research is non-parametric testing.

TABLE 1: Research Design.

	Pretest	Intervention	Posttest
One group pretest-posttest design	O1	X	O2

## 4. Results and Discussion

### 4.1. Results

The following is a description of the research data obtained from the pretest and posttest measurement scores on the subjects.

The following is the average score of all subjects both during the pretest and posttest.

Table 3 shows the change in healthy eating behavior scores of PKK mothers between before and after being given the mindful eating psychoeducation intervention. The mean score on the posttest is higher when compared to the mean on the pretest.

TABLE 2: Subject Pretest and Posttest Results.

No	Name	Gender	Pretest	Category	Posttest	Category	Information
1	ESH	Woman	82	Low	114	High	Increase
2	SMR	Woman	94	Medium	114	High	Increase
3	SPP	Woman	94	Medium	141	High	Increase
4	SMT	Woman	95	Medium	116	High	Increase
5	RDY	Woman	104	High	112	High	Still
6	SFT	Woman	91	Medium	112	High	Increase
7	SBB	Woman	105	High	112	High	Still
8	WWA	Woman	99	Medium	113	High	Increase
9	KSM	Woman	82	Low	93	Medium	Increase
10	WA	Woman	97	Medium	115	High	Increase
11	Y	Woman	92	Medium	112	High	Increase
12	SZ	Woman	88	Medium	112	High	Increase
13	IST	Woman	104	High	116	High	Still
14	LI	Woman	97	Medium	115	High	Increase
15	AY	Woman	78	Low	87	Medium	Increase
16	WS	Woman	100	Medium	113	High	Increase
17	NDK	Woman	87	Medium	115	High	Increase
18	AC	Woman	85	Low	91	Medium	Increase
19	D	Woman	103	High	114	High	Still
20	ESH	Woman	90	Medium	112	High	Increase
21	NE	Woman	101	Medium	116	High	Increase
22	S	Woman	113	High	112	High	Still
23	NA	Woman	94	Medium	113	High	Increase
24	RW	Woman	93	Medium	113	High	Increase
25	RH	Woman	89	Medium	112	High	Increase
26	SQ	Woman	94	Medium	113	High	Increase
27	STN	Woman	85	Low	92	Medium	Increase

TABLE 3: Subject Descriptive Analysis Results.

Information	N	Average	Standard Deviation	Minimum	Maximum
Pretest	27	93.93	8,176	78	113
Posttest	27	111.11	10,263	87	141

The data analysis process in this research was carried out non-parametrically using the Wilcoxon Signed Ranks Test.

TABLE 4: Wilcoxon Signed Ranks Test Results.

Z	p	Information
-4,518	0,000	Significant

Referring to the results above, it shows that there is a significant difference in healthy eating behavior of PKK mothers after being given mindful eating psychoeducation intervention.

Based on the results of the analysis, shows there are differences in the healthy eating behavior scores of PKK mothers. A significant increase in healthy eating behavior scores occurred after the PKK mothers received mindful eating psychoeducation for several sessions.

## 4.2. Discussion

There are several factors that influence a person's healthy eating behavior, which can be explained in the concept of the I Change Model (ICM) belonging to Preissner, Oenema & Vries [13]. In ICM, there are three types of factors, namely predisposing factors, awareness factors and motivation factors. If the analysis is carried out and linked to predisposing factors, there is a possibility that the low level of healthy eating behavior among PKK mothers is may caused by their low educational history (dominated by the level of education of junior high school up to senior high school graduates) as well as the condition of PKK mothers, most of whom work as mothers household. If it is related to the awareness factor, the low educational history and profession which is limited to housewives means that PKK mothers lack knowledge about the contents of the food they consume daily. The results of observations and interviews show that the PKK women choose to consume rice excessively because it is more filling. On the other hand, fried foods and sweet foods and drinks are chosen because they taste good, are filling and have a more economical (cheap) value. The perception of PKK mothers emerged without considering the impact of disease risks that would affect their health conditions in the future.

Motivational factors are also involved in the low level of healthy eating behavior. Observation results show that a series of events in each village, such as social gatherings, visiting homes between residents or other village events often serve food and drinks that are less nutritious, such as fried foods (gorengan), spiced chips and drinking sweet packaged drinks. Indirectly, this influences the eating habits of PKK mothers.

In this research, mindful eating intervention for PKK mothers using a psychoeducational approach was carried out in 7 sessions, with the core activities being providing material about mindful eating, practicing mindful eating together, and filling in mindful eating practice worksheets. During the intervention process, many PKK mothers realized that the eating behavior they had been doing so far was not appropriate. Many of them are not aware of the impacts and risks resulting from the unhealthy eating behavior they have been doing. After learning about the benefits of mindful eating, the PKK mothers were taught to practice mindful eating together. PKK mothers are also committed to implementing mindful eating when carrying out daily eating activities as an effort to improve eating behavior for the future after following mindful eating psychoeducation.

After conducting a posttest at the end of the session, it could be seen that there was an increase in the healthy eating behavior of the PKK mothers after being given the mindful eating intervention through a psychoeducational approach. So, it can be concluded that this research has succeeded in proving that mindful eating intervention through a psychoeducational approach can increase healthy eating behavior among PKK mothers. The results of this research are in line with and support previous research by Jordan, Wang, Donatoni & Meier which studied that mindful eating can predict healthy eating behavior. When someone applies mindfulness in eating activities, there is a tendency for that person to be able to control their eating behavior (such as giving different responses to each type of food based on its content [1]. Kristeller & Wolever revealed that good self-control over a person's eating behavior can reduce impulsive eating behavior in response to emotional eating [14].

In addition, someone who has learned and applied mindful eating several times has a better level of awareness in responding to the food they consume [15]. Indirectly, this encourages changes in a person's eating behavior habits, thereby forming new healthy eating behavior [16]. When there is a situation where a person has succeeded in feeling the benefits or positive impacts of eating behavior healthy, it will form a healthy environment together, which can encourage and influence other people to realize, learn and practice mindful eating [17].

### 4.3. Study Limitations

There may be some possible limitations in this study that could be addressed in future research. The sample size in this study was small and this study only use one group

pretest-posttest design, which raises a possibility of a potential to be less representative of the existing population and the statistical results are less significant.

## Acknowledgments, Funding and Ethics Policy

The research was completed by involving assistance from various parties, including:

1. Dr. IGAA Noviekayati, M.Si., Psychologist, as research supervisor at the Faculty of Psychology, University of 17 Agustus 1945 Surabaya
2. Mrs. Irul, as Chair of the PKK Village X
3. Mrs. Nia, as Chair of the Health Care and member of the PKK of Village X
4. Mrs. Nanik, as the Pamong of Village X
5. Mrs. Nadia, as the midwife at Puskesmas X
6. All residents of Village X

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