

Studies on the Application of Nostalgia Supergraphic for Inducing Positive Emotions Among Elderly in The Abiyoso Nursing Home, Yogyakarta

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ABSTRACT

The process of aging as the weakening function of the human brain that leads to cognitive degenerative diseases and physical disabilities usually affect the ability of most elderly in interacting with their immediate environment. This research aimed to analyze the impact of the old supergraphic photos applied in the Abiyoso nursing home, Yogyakarta, on the positive emotions of the elderly. The research involved a sample of 13 participants of the elderly aged 60 years and above from 4 different homes in the Abiyoso, nursing home Yogyakarta. This research was to test the previous findings that elements of nostalgia were effective to elicit positive emotions of the elderly and social relations. The research applied a qualitative research method by action research using a supergraphic image of old Yogyakarta city. The results showed that the elderly subjects expressed their positive emotions and enthusiastically interacted with the other occupants while explaining visual perception of every picture contained in the supergraphic. The application of supergraphic induced subjects longing to the places they loved to visit and it was effective to increase desires to scrutinize; liking to invite the other occupants to share; improving pleasures after the advent of supergraphic; willingness to see it again; interests in the presence of supergraphic; improving cheerful emotions, longing, enthusiast, and the feeling of relaxing after looking at the old photos presented had induced social interactions and length of social interaction. The object category of the supergraphic had a dominant impact to positive emotions and social interaction compared to those of tradition and art categories.

Keywords: Supergraphic, Perception, Emotion, Social relation, and Elderly.

1. INTRODUCTION

The aging process with a weakening of human brain function that causes cognitive and physical degeneration usually affects the ability of most of the elderly in interacting with their immediate environment. The increasing number of the elderly population demands to maximize the facilities, atmosphere, environment, and activities. According to [1] several activities can be alternatives for the elderly to feel happier, more enthusiastic, entertained, calm, and longing experienced by humans; such as nostalgia.

The Special Region of Yogyakarta is the city with the highest life expectancy in Indonesia, namely the age range of 76 years for women and 74 years for men. The Special Region of Yogyakarta (DIY) is a

province with the highest number of elderly people in Indonesia of 14.50% of the total population of 45,000 elderly. Therefore, the government and related parties are expected to play a role in improving the quality of life of the elderly. Thus, they do not become a burden on the community but can carry out all their activities independently. According to the Ministry of Social Affairs of the Republic of Indonesia, a nursing home is a place to accommodate the elderly and neglected elderly by providing services to make them feel safe.

The BPSTW (Tresna Werdha Social Center) manager of the Abiyoso unit has provided several mandatory and optional routine activities that can be followed by the elderly. Besides routine activities that have been determined and scheduled by the

nursing home manager, the elderly often do not carry out activities such as skills guidance, spiritual guidance, psychological guidance, health services, and community service or in other words, just stay silent at certain times. This situation makes the elderly have fewer social contacts and often feel alone or lonely (loneliness). The social isolation experienced by the elderly can lead to depression, loneliness, and/or other social and cognitive disorders [2]. This can have a direct impact on the elderly because it can trigger feelings of boredom and anxiety and decrease the spirit of the elderly. Based on previous research, researchers developed nostalgia in the form of a supergraphic using old photos as a medium for triggering positive emotions to facilitate the social relationships among the elderly. Photos will play the role as visual aids to help elderly residents remember their lives [3]. Besides, photos can assist to connect long-term memories and analyze meaningful conversations.

Nostalgia aims to understand the positive emotions that are affected, including the development of social relationships in the elderly. Nostalgia is the basis in determining the variable indicator formulation of the experience of the elderly residents while receiving a stimulus by connecting past events and periods such as childhood, family, school, romance, and friendship. In late adulthood, older adults (aged 76 - 91) tend to be more prone to nostalgia than middle-aged adults. [2]. Furthermore, photos are used in nonverbal communication such as clapping, pointing, dancing, or moving according to the photo shown. It has also been shown to help restore a sense of identity among older adults suffering from dementia in Mills and Coleman 1994 [2]. The supergraphic display is a stimulus that can trigger positive human emotions. Everyone needs sensory stimuli to understand the environment. The only way to get information received by the brain is through sight, sound, touch, taste, smell, and movement [4]. In line with [5] it is affected by social aspects, sensory input, and memorable events through supergraphic stimuli, sight and hearing are stimulated in their adaptation to the presence of a stimulus. The elderly explores through visions, stories, and past conversations. Photos and stories can be used to trigger memories of the elderly's past and generate positive emotions and ignite social relationships with others.

Based on the background, it prompted the author to research the involvement of positive emotions in the elderly in activities through the application of supergraphic displays. This research tried to answer two questions. First, how is the effect of nostalgia

supergraphic on positive emotions among elderly residents in social relations in the nursing home living room. Second, what are the elements in nostalgia supergraphic that affect positive emotions among the elderly in social relations in the nursing home living room This finding is expected to increase knowledge and awareness about how parents act and how they are affected by positive emotions where they live.

2. METHOD

This research used a nostalgic approach with descriptive qualitative technique. A qualitative approach was used to identify and describe the positive emotions and perceptions of the social relations of the elderly residents to the visual exploration media in the form of supergraphics. Besides, it also used observation by recording both verbal and non-verbal communications that were not assessed by the questionnaire and to support the results of the questionnaire. The independent variables included supergraphic elements, such as object photos, traditional photos, and art photos. In the supergraphic display, the participants guessed the photo displayed and told the memories regarding the photo displayed to trigger positive emotions. The photos displayed in the supergraphic included old photos of Yogyakarta related to the categories of objects, traditions, and arts. The dependent variables were the elderly perceptions, positive emotions, and social relationships that occur as affected by the supergraphic during the experiment. Perception can be defined as the response of the elderly when exploring visual media. Positive emotional responses that were expressed spontaneously could be in the form of liking, interest, pleasure, amusement, longing, enthusiasm, and calm that occurs. Social relations include verbal and nonverbal communication actions performed by each individual while watching the supergraphic display. The control variable was the time the research was conducted, namely at 12.00 WIB; This visual media was displayed in the living room for 20 minutes. Participants consisted of 134 elderly people (51 men and 83 women) at BPSTW Abiyoso, Yogyakarta. They were divided into three groups, there were young elderly, middle elderly, and old elderly, each aged 60-69, 70-79, and over 80 years old. There were 48, 55 and 31 participants in the group of young elderly, middle elderly, and old elderly.

Table 1. Characteristic of respondent

No	Name of nursing home	Number of residents	Gender	Age		
				Youngest-old (60-69 years)	Middle-old (70-79 years)	Oldest-old (80 years above)
1	Wukiratawu Nursing Home	10	Woman	3	5	2
2	Andong Sumawi Nursing Home	11	Woman	4	4	3
3	Pagombagan Nursing Home	10	Woman	4	4	2
4	Isolasi Nursing Home	14	Man & woman	2	5	7
5	Bale Kambang Nursing Home	12	Man & woman	6	3	3
6	Godomodono Nursing Home	10	Woman	2	4	4
7	Jolotondho Nursing Home	13	Man	4	6	3
8	Giri Sarangan Nursing Home	14	Man & woman	10	3	1
9	Saptopratolo Nursing Home	7	Man	2	4	1
10	Talkondho Nursing Home	6	Woman	-	3	3
11	Grojongan Sewu Nursing Home	14	Man & woman	5	8	1
12	Indrokilo Nursing Home	11	Woman	4	6	1
Total		134		48	55	31

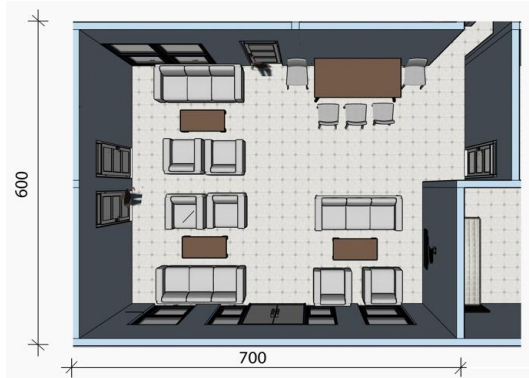


Figure 1 Layout existing of living room



Figure 2 Existing condition of living room

2.1. Purposive sampling

The characteristics of the participants are presented in Table 1. The sample consisted of 38% men and 62% women. Furthermore, 36%, 41% and 23% of the sample were classified as youngest-old, middle-old, and oldest-old. Regarding the level of education, 54% were dominated by those who didn't study at school and their highest education was 1% completing higher school. Although participants' length of stay in nursing homes varied between 6 months and 25 years, the majority had been at home between two and three years.

2.2. Research object

The characteristics of the participants are presented in Table 1. The sample consisted of 38% men and 62% women. Furthermore, 36%, 41% and 23% of the sample were classified as youngest-old, middle-old, and oldest-old. Regarding the level of education, 54% were dominated by those who didn't study at school and their highest education was 1% completing higher school. Although participants' length of stay in nursing homes varied between 6 months and 25 years, the majority had been at home between two and three years.

2.3. Experimental stimulus

The stimulus used in the experiment was developed using Adobe Illustrator 2020 software to create supergraphics and Adobe Lightroom software used to edit photos. Old photos of Yogyakarta because it is believed that many elderly residents have many memories and are familiar with the atmosphere of Yogyakarta at that time.

2.4. Photo categories

For this stimulus, three categories of traditional, object, and artistic photos were presented to the participants consisting of 4 questions for each category in each photo. (see figure 3, 4, & 5).



Figure 3 stimulus supergraphic 1



Figure 4 stimulus supergraphic 2



Figure 5 stimulus supergraphic 3

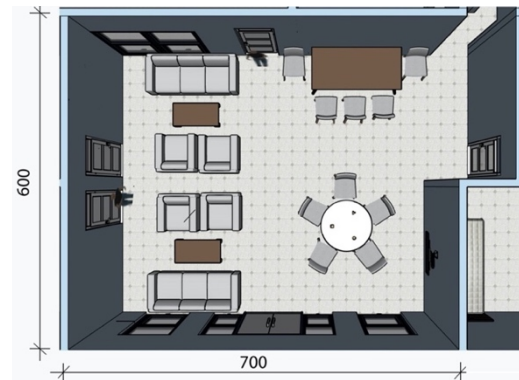


Figure 6 Layout existing of living room

2.5. Experimental measurement tool

The measuring instrument consisted of a questionnaire and direct observation. A five-point Likert scale was used in the questionnaire to assess perceptions of visual media, positive emotions, and social relationships. For the perception of visual media, there were: mentioning pictures, telling memories in pictures, feelings felt after watching pictures, ease in understanding the memorable stories conveyed, frequency of watching, and ease in understanding pictures and answering questions.

Positive emotions can be assessed from feelings of liking, interest, pleasure, comfort, longing, enthusiasm, and calmness that occur [2]. Social relationship variables were related to the number of

participants and the behavior of the elderly was measured through observation; Verbal and non-verbal communication was recorded. The following forms of social relations were assessed: eye contact, body orientation, gestures, physical contact, closeness, and dialogue [6].

Experiment Equipment. The equipment used during the experiment Fig. 5 were as follows: (1) The living room in the nursing home guest house; (2) Supergraphic measuring 200 x100 cm; (3) a dining table with a diameter of 90 cm, and a dining chair and (4) a Sony A6000 & Go-pro Hero 7 camera and (5) a smartphone used to assist in filling out the questionnaire.

2.6. Procedures

The experiment was conducted in a living room that was often used by the elderly to socialize with other people. The experiment was carried out at 12.00 WIB for ± 20 minutes. The participants included 13 elderly residents from 4 different nursing homes, namely Indrokilo, Pagobagan, and Grojogan Sewu, and Wukirataw at the Abiyoso Nursing Home. The experiment consisted of two conditions. In the first condition, participants did not watch the supergraphic. Researchers observed the positive emotions and social relationships of participants directly. Furthermore, they answered the questionnaire. After observing condition 1, the elderly were informed about the supergraphic displaying schedule. Their reactions were observed. At the same time on different days, the second requirement was implemented, it was visual exploration media in the form of supergraphics. The tools for the media and the procedures to be followed are described. Questionnaire questions regarding perceptions and positive emotions as well as social relationships among elderly residents were asked in a flowing manner to participants when the experiment was carried out. Thus, participants were more comfortable and did not feel they were being studied, and the responses from the elderly both verbally and non-verbally were observed directly through observations by research assistants and researchers. As mentioned earlier, the experiment was conducted in the living room of two nursing houses.

2.7. Data analysis.

The questionnaire was analyzed with descriptive qualitative. Furthermore, the data from the observations were also analyzed. Forms of positive emotions and social relationships can be seen from the four videos in the two guesthouses.

This data was used to strengthen the data obtained through the questionnaire.

3. RESULT AND DISCUSSION

Perceptions of supergraphics, positive emotions, and social relationships were tested for validity and reliability through a pilot test using extended observation, increasing persistence, and triangulation methods. The results revealed the validity and reliability test of supergraphic perception was 100% (see Table 2). Thus, it can be concluded that the question that assessed the perception of supergraphic media was valid (>75%).

The elderly's perception of supergraphic media can be assessed from the level of happiness and desire to rewatch. It can be concluded that the elderly have positive emotions that can trigger social relationships between elderly residents. Their motivation to watch supergraphic media is also seen in their willingness to participate with other elderly residents. This can be seen from the enthusiasm of the participants who tend to sit opposite each other while responding to other participants rather than just sitting facing the supergraphic media displayed, especially in the woman residents. This allows them to have a better outlook and social relations. They also appear more expressive and more focused (see Fig.4). This finding is in line with [7] the statements that old photos can stimulate the brain trigger memories and positive emotions. In addition, it is also in line with research [8] mentioning that photography is the best effective therapy to increase self-esteem and reduce behavioral disorders in elderly residents who suffer from dementia.



Figure 7 The enthusiasm of elderly women while watching *supergraphic* media

Furthermore, some elderly people have a collection of several photos related to old photos of Yogyakarta. Thus, it shows they have a lot of memories related to photos at some points in Yogyakarta. Positive emotions and social

relationships can increase when past memories of them are the same to one another. In essence, supergraphic media motivate the elderly to socialize with each other.

Choice of photo categories. Each category of photos involves a person's sight and hearing to see the images and listen to the memories of each elderly related to the photos displayed. Choice of photo categories related to traditions, objects, and art in old photos of Yogyakarta that the elderly residents have passed. The majority of elderly residents prefer the photo category related to objects. Old Yogyakarta photos related to objects remind the elderly of their past. They reveal memories of places, activities, stories, and people involving multiple parties from the past on objects. This is supported by [3] mentioning that reminiscence activities provide so many benefits for the elderly, such as social relations for the elderly residents. Besides, it is also reinforced that photos are one of the best conversation starters that serve as visual aids to help elderly residents remember their lives.

Positive emotion. Based on [2], Positive emotions that occur because of the supergraphic stimulus can be in the form of the level of liking, interest, pleasure, amusement, longing, enthusiasm, and calm that occurs. This emotion was seen during the observation of the facial expressions and behavior expressed by each of the elderly residents during the experiment. The positive emotions that are felt, certainly affects the social relationships that occur. During the experimental process, it was found that-through the presence of supergraphics, it can improve the social relations of elderly residents. This is in line with [9], it can be seen from verbal communication and nonverbal communication conducted by elderly residents. The form of social relations in verbal communication that occurs when the elderly were talking with other elderly people about the possibility of the right answer, remembering, and telling the past to other elderly people. This finding is also supported by the statement that photos are one of the best conversation starters. Photos or pictures will act as visual aids to help elderly residents remember their lives [3]. Elderly residents begin to communicate with others either about the photos displayed on the supergraphic or their past related to the photos displayed. This stimulus succeeded in triggering the elderly to reminisce about their past. This can be seen when they inadvertently talk about their past experiences, which are triggered by a stimulus. Thus, mutual exchange occurs. Furthermore, when the elderly spontaneously take action by moving

their body parts by pointing, facing each other, nodding, turning, respecting, dancing, smiling, laughing, approaching, and talking to others.



Figure 8 Forms of elderly activities in condition 1

The elderly watched exploratory visual media in the form of a supergraphic with a time duration determined by the researcher, which was ± 20 minutes. A person can conclude that they are interested in and enjoy the stimulus. As previously mentioned, the elderly who had not been involved in the experiment also wanted to participate in viewing the supergraphic.

4. CONCLUSION

Based on direct observation, in condition 1 of the interior design, there are chairs arranged in a sociopetal form and a television. This facility is not adequate for social interaction activities. Toepoel [10] revealed that watching TV is a passive activity. It does not result in social relations. Furthermore, the sociopetal arrangement is most commonly applied in rooms used for socializing functions. This arrangement aims to facilitate social interaction. However, not many social relationships occur in condition 1. In essence, the elderly just sits quietly and watch television in the living room without interacting with other people (see Figure 5). inner hall [11] asserted that furniture arranged in a sociopetal form provides an easier opportunity for people to interact. Meanwhile, Gifford [11] noted that seating patterns in a sociopetal arrangement do not guarantee social interaction because other factors can affect socialization. In addition, many seniors remain outside the living space on the terrace or in their bedrooms.

In condition 2, the supergraphic placed in front of the elderly [12] revealed that the visual ability of the elderly decreases. The older a person is, the higher the visual impairment. Natural lighting from windows and doors is used. Moe I on [13] stated that natural lighting can encourage social interaction. The distance of the visual media needs to be considered when watching the supergraphic stimulus. The older one is, the higher the visual penetration rate [14]. Therefore, the distance of the

supergraphic stimulus to the elderly seat is ± 1.00 m. It is believed that this distance is sufficient for the elderly to see the stimulus displayed.

Positive emotions were created among the elderly in the living room. It was revealed that through the supergraphic stimulus, the positive emotions in the form of the level of liking, interest, pleasure, amusement, longing, enthusiasm, and calmness that occurred triggered the elderly's social relationships to increase with each other. This can be seen from their verbal and nonverbal communication. Their verbal communication includes that the elderly communicates or talks with other elderly people, namely about the possibility of the right answer, remembering and telling the past to other elderly people (see Figure, 9).



Figure 9 Form of social relations through verbal communication while watching supergraphic media

Elderly women who are socially related to other elderly women tend to have more social relationships than elderly men who participate with elderly men in supergraphic media. This is in line with the socio-emotional selectivity theory states that a person chooses to spend time with happy people and opinion of Heska and Nelson in [11]. They stated that women would reduce their personal distance in terms of talking to the same sex. Unlike the case with elderly men who still maintain their personal distance. Elderly women feel more comfortable socializing only with elderly women as well. They usually only greet men elderly. Men and women use the distance from their homestead and the regulations imposed as an excuse for their lack of social relations.

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