

Conference Paper

Bystander Effect on Helping Behaviour of Female Adolescents

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Abstract

Helping behaviour is an intentional act to benefit others. Due to constant, overwhelming distractions available massively in urban settings or urban-overload hypothesis, numerous research have unfortunately shown that people in the cities are less and less likely to engage in helping behavior. Hence, it is important to promote helping behaviour, particularly in female adolescents as they start to develop their social roles as the nurturing gender. Helping behaviour is influenced by a number of environmental and individual factors. One of those factors is bystander effect – how the presence of others around the event of emergency influences the decision to help. This between-subject experiment aims to find out the influence of bystander effect on helping behaviour of sixty 15–18 years-old female high school students purposively sampled for this research. Observational data of randomized control and experiment groups show significant influence of bystander effect on participants' helping behaviour toward a research confederate acting to be in need of assistance (independent *t*-test score: 3.29, with 0.05 level of significance, 58 degree of freedom, 1.671 critical values). This concludes the influence of bystander effect on helping behaviour of female adolescents.

Keywords: bystander effect, helping behaviour, urban-overload hypothesis, gender, adolescence

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Received: 8 June 2018

Accepted: 17 July 2018

Published: 8 August 2018

Publishing services provided by
Knowledge E

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Selection and Peer-review under the responsibility of the 2nd ICVHE Conference Committee.

1. Introduction

Helping behaviour is an intentional act to benefit others [1]. It is influenced by numerous individuals and environmental factors. Mood, traits, parenting styles and gender are some of its individual factors, whereas attribution, attractiveness, time pressure and role model are some of the environmental ones.

Amongst those factors is bystander effect – the presence of people around the event of emergency influence the decision to help [2]. The greater the number of bystanders,

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the less likely an individual would provide help to others. Darley and Latane [3] confirms that people who are alone during an event of emergency tend to help others. On the other hand, Staub [3] provides the opposite evidence that the presence of others increase the likelihood of providing assistance for others. All in all, bystander effect is known to influence helping behaviour.

Research in urban settings confirms the bystander effect. Cotterell [4] showed how a large number of people did not help a woman in need of assistance with her car in a crowded street. Nufus [4] also showed how a 20-year of student named RU from Nurul Ummah Islamic boarding school in Yogyakarta had to go to the hospital by himself because nobody provided help. Milgram [2] argues that constant, overwhelming distractions available massively in urban settings, known as urban-overload hypothesis, force people to adapt through prioritization – causing them to be less responsive to the needs of others.

It is crucial to promote helping behaviour, especially during the period of adolescence. Konopka [5] divides adolescence into its early phase of 12–15 years old, to middle one of 15–18 old, up to late adolescence of 18–22 years old. Adolescence takes place as an individual undergoes biological, cognitive and socio-emotional changes in his or her transition from childhood to adulthood to exercise his or her roles in the society and develop social norms – including by becoming socially responsible through helping others [6].

The emotionally caring, nurturing and supportive roles are particularly important for female adolescence in order to be compliant to socially prescribed gender norms [2]. Hence, this research aims to find out the influence of bystander effect on helping behaviour of female adolescents.

2. Methodology

2.1. Research design

Experimental research exposes participants to different treatments in a controlled environment in order to achieve identification of causality [7]. In a between-subject designed experiment, each participant is exposed to only one treatment, whereas causal estimates are obtained by comparing the behavior of those in one experimental condition with the behavior of those in a control group through randomization [7].

2.2. Variables

Because this research aims to find out the influence of bystander effect on helping behaviour of female adolescents, therefore the independent variable (IV) in this research is bystander effect, or operationally defined as the presence of research assistants unknown to the participants in the premise.

Helping behavior is the dependent variable (DV) of this research, operationally defined as a series of observable behaviours toward a female research confederate role-playing in deception as being in need of assistance. Her roleplay comprises of dropping his or her books and papers on the ground around the participants and research assistants. Because this research uses female participants, research confederate is also female because with female potential helpers, both female and male individuals have equal chance to received help [3]. Meanwhile, research assistants are both male and female.

Helping behaviours are operationally defined as: (1) noticing that the research confederate is in need of assistance, (2) approaching him or her, (3) asking whether or not he or she needs help, (4) picking up his or her belongings on the ground and (5) assisting him or her so she can carry his or her belongings.

By using an observation checklist, each observable behavior is scored 5 point. This results in a range of 0 to 25 points for each participant.

Secondary variables are mood and time pressures and attribution. Mood is controlled by exposing participants to a neutral documentary film about plants and animals beforehand. Time pressure is controlled by ensuring that participants are not scheduled to any other activities. Attribution is controlled through rehearsals of the research confederate in order to appear convincingly believable in her roleplay.

2.3. Participants

Participants of this research are thirty 15–18 female high school students from ABC state school and another thirty students from XYZ private one in Jakarta – both located in Bintaro area of South Jakarta and South Tangerang. These 60 participants are selected based on purposive sampling according to the criteria set for this research [8]. They are divided into experimental and control groups by randomization – or randomly assigned participants into two separate groups [7].

2.4. Procedure

Days before the experiment, a series of preparation and pilot studies were carried out – to ensure the effectiveness of observation checklist, the believability of the research confederate in her roleplaying and the research assistants as bystanders.

In a classroom, participants were briefed by their school teachers and the experimenters. The teachers had given their informed consents as adults representing their adolescent students as participants in the experiment. In the introduction, deception was used to mislead the participants by explaining that the experiment was to examine the effect of music to students' task performance.

The task in this case was students' performance of choosing the correct answers in a national examination test on Indonesian language. Students were first exposed to a neutral documentary film to control their mood and then randomly assigned to control and experimental groups. Next, participants were instructed to go through a school hallway into a different classroom to receive a task.

In the hallway, one female research confederate acted to be in need of assistance by dropping his or her belongings on the ground. For participants in the experimental group, 3 research assistants of one female and two male served as bystanders who stood around the research confederate in the hallway. For participants in the control group, the hallway was empty of people except the research confederate. Helping behaviours exhibited by the participants were collected using the observation checklist.

After the research confederate carried out his or her role-playing, participants were instructed to proceed into the class room to receive tasks. When participants worked on the task, they were exposed to music. Once they finished, they submitted the completed tasks. As students exited the class room, they were debriefed including the use of deception in the experiment.

Once the experiment was completed, data gathered were collected in Microsoft Excel software so the total sum and average of each group could be calculated. Independent sample *t*-test was used to determine whether the groups mean difference score is significant so that it could not reasonably be attributed to chance.

2.5. Hypothesis

Null hypothesis (H_0) of this experiment is that there is no observed bystander effect on helping behaviour of female adolescents, reflected in similar score of experimental

and control groups, or the total score of the control group to be significantly bigger compared to the experimental one. Alternative hypothesis (H_a) is that there is an observed bystander effect, as reflected in the total score of the experimental group to be significantly smaller compared to the control one.

3. Results

The result of the experiment is comprised in the following table.

TABLE 1: Result.

	Group	
	Control	Experimental
N	30	30
$\sum X$	440	250
Mean	14.667	8.333
$\sum X^2$	8700	3050
$(\sum X)^2$	193600	62500

Afterward, t -test is calculated in order to determine whether the groups' mean difference score is significant so that it could not reasonably be attributed to chance. The following is the t -test formula:

$$t = \frac{\text{group mean difference}}{\text{average within – group variability}}$$

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sum X_1^2 - \frac{(\sum X_1)^2}{N} + \sum X_2^2 - \frac{(\sum X_2)^2}{N}}{N_1 + N_2 - 2}} \left(\frac{1}{N_1} + \frac{1}{N_2} \right)}$$

Group mean difference = 6.333

Average within group variability = 1.92

$t = 3.29$

Based on the abovementioned calculation, the value of t is 3.29. With the use of 0.05 significance level and degree of freedom (df) 58, this leads to the critical value of 1.671. Hence, it means that the obtained value of t is greater than the critical value of t , the likelihood of the difference in the man scores of the two groups occurred by chance is less than 5 in 100. It can be concluded that null hypothesis can be rejected and alternative hypothesis can be accepted.

4. Conclusion

The conclusion of this experiment is that there is an observed bystander effect in helping behaviour of female adolescents. Hence, the helping behaviour of female adolescents is influenced by the presence of bystanders. Suggestions for future research are further studies on the influence of gender of research assistants serving as bystanders and also the influence of age of the research confederate.

Acknowledgement

The authors are grateful to the God for the good health and well-being that were necessary for this research. We wish to express our sincere thanks to Ms. Vemmy, our research adviser, for the assistance and encouragement to pursue to this study. The authors also wish to thank Ms. Gita, our Head of Psychology Department, for the assistance to this research. They would also like to show their gratitude to Via, Vias, and Boy for their help and for believing that in them. The authors are also thankful to their family for the generous support and inspiration; and finally, to everyone who, directly or indirectly, have lent their hand in this research.

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