Relationship between Previous Traumatic Experience, Post-Traumatic Growth, Coping Strategy to Mental Health State on Refugees in Sidoarjo Camp

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ABSTRACT

Background: Refugees face a problems of loss of residence, loss of work, education, alienation from the community, and limited access to health services which indirectly cause mental health problems for refugees. This study aimed to analyze the relationship between previous traumatic experience, post traumatic growth and coping strategy to mental disorders among refugees in sidoarjo camp. Method: This study was a cross sectional study with total 97 refugees in sidoarjo camp which chosen with simple random sampling. They were asked for fulfilling post traumatic, various traumatic experience and coping strategy questionnaire. The result was analyze using SPSS. Result: This study found that there was no significant relationship between coping strategy (p>0.05) and post traumatic experience (p>0.05) with mental disorders and there was not significant relationship between previous traumatic experiences (p>0.05) with post-traumatic growth. But there is significant relationship between coping strategy (p<0.05) and post traumatic growth. Discussion: Need further research on the same topic with qualitative methods to explore results, especially with regard to post-traumatic growth dynamics and flexibility in coping and social support in refugees. In addition, cultural variables in this study can also be related to the cultural context

INTRODUCTION

In a recent report announced by the United Nations Agency for Refugees (UNHCR), in 2015, more than 65.3 million people were forced to flee their homes due to violence, persecution and conflict. This number includes at least 32 million refugees who are forced to leave their homes and communities but still live in their home countries. The number of refugees related to violence is currently at the highest level in 20 years, while the number of internal refugees is at the highest level in 50 years [1]. Based on data from June 18, 2002 the number of refugees in Indonesia was 1,355,065 people spread across 20 provinces. 70% of this number consists of women and children, namely those belonging to vulnerable groups to mental health and psychosocial problems [2]. Impacts resulting from loss of residence, loss of work, education, alienation from the community, and limited access to health services indirectly cause mental health problems for refugees. The World Health Organization (WHO) estimates that, in conflict situations around the world, 10% of people who experience a traumatic event will have serious mental health problems and another 10% will develop behaviors that will hinder their ability to function effectively. The most common conditions are depression, anxiety and psychosomatic problems such as insomnia, or back pain and stomach pain [3].

Previous study found several factors related to mental health problems of refugees, namely: young age (children and adolescents) have relatively better results than adults and elderly. Female refugees, rural areas origin, higher education, and socioeconomics status showed worse mental health outcomes [4]. Psychosocial problems distributed in all areas include various forms of psychological complaints and psychiatric disorders related to trauma experiences, such as post-traumatic stress, depression, anxiety and various psychosomatic symptoms; domestic violence; child abuse; alcohol abuse; aggressive behavior, and other psychosocial problems such as learning problems, child and youth problems, economic problems, pessimism and tendency towards substance dependence [2,5-7].

Sampang refugees who currently live in Sidoarjo refugees camp have experienced force displacement as a result of religious conflict that began with two consecutive family conflicts, namely Arson and physical beatings which caused the move from Omben Village to the Sports Building in the center of Sampang sub-district for almost a year on August 26, 2012. The second forced transfer occurred on the 20th June 2013 which forced Sampang refugees to live in temporary shelters in the Puspa Agro Sidoarjo flat to date. Preliminary research conducted by researchers to determine the degree of quality of life of Sampang refugees using WHOQOL BREF showed poor results on all dimensions of measurement, namely 47.61% in the dimensions of the refugees’ environment, 39.51% and 33.43% in the physical and psychological dimensions. While the moderate quality of 32.41% is found in the dimension of social relations [8]. Sampang refugees in Sidoarjo camp since June 2013 experience unclear settlement with population identity which until now has not been given, access to limited health facilities, transfer of educational status to children who are unclear, difficulties in getting work because previously working as a farmer, as well as severing relationships with extended families in Madura increase the risk of mental health problems. Stress that lasts continuously or can not be solved coupled with psychosocial stress to new problems that arise post migration can cause delayed post traumatic stress disorder (PTSD). Based on complex epidemiological data PTSD can occur after six months after the event can even appear after seven years. The symptoms that arise can be PTSD that persists or is a symptom that arises due to experiencing stress just after migration or is cumulative.
trauma [9]. Besides causing mental disorders, traumatic events can also lead to post-traumatic growth. Post-traumatic growth (PTG) is defined as a positive change experienced by someone after struggling with traumatic living conditions. Traumatic events require individual efforts to understand and interpret themselves and their lives that change due to the events experienced. Post-traumatic growth aspects include: 1) a great appreciation for life, this is achieved by interpreting life well every day, focusing on what is owned and enjoying it; 2) close relationships with other people. In this aspect, individuals are better able to recognize the meaning of relationships with friends and family, spend more time with others and increase the ability to empathize; 3) new possibilities in life; 4) increased personal growth allows individuals to have coping abilities with pressing conditions such as trauma to foster self-efficacy; 5) spiritual change. Some of the factors identified as contributing to PTG are age and gender, traumatic events, personality, coping, social support such as family, friends, and organizations [10]. This study explored the relationship between previous traumatic experience, post-traumatic growth, coping strategy to mental health state on refugees in Sidoarjo camp.

METHODS

This research is an observational analytic with cross sectional study approach. The study was conducted in a flat rented Puspa Agro Sidoarjo owned by the Regional Government of East Java Province. When the study was conducted in November - December 2019. Research subjects who met the criteria were taken data through questionnaire instruments and statistically analyzed.

The target population of research is internal refugees (Internal Displaced Person) di Indonesia. The population of this research is the Sampang refugees who live in the Evacuation Center of Agro Sidoarjo Flat Housing owned by the Regional Government of East Java Province from June 2013 - December 2019 (6.5 years).

Based on data obtained (2016) a total of 323 people became refugees due to the conflict. Consists of 154 school-age children and 9 toddlers (0-3 years old) and when the author was at the site, only about 234 inhabitants lived in Sidoarjo camp with 99 adults while the remaining 135 were school-age children some of them even on attend school in Islamic boarding schools in some towns. Of the 99 people, 2 people refused to be interviewed so that the research subjects were 97 people. This study had been approved by health study ethical committee of Faculty of medicine Universitas Airlangga number 300/EC/KEPK/FKUA/2019.

RESULTS

This study found that most refugees were in the age group of 18-30 years (40.2%), were women (53.6%), uneducated (50.5%) and work (59.8%). The most frequent manifestations of mental disorders occur in the age group 46-60 years (47.8%) with depressive episodes (17.4%). Refugees who experienced mental disorders mostly have elementary school background (48.1%). This study result showed no significant relationship between age groups, education level and mental disorders (p>0.05). There was a relationship between occupation and sex with mental disorders. From the table 1 also showed that there was no relationship between age, sex, and education level with post-traumatic growth but occupation status was related (Table 1).

This study found that 39.2% refugees experienced mental disorders including depressive episodes (17.50%), global anxiety disorders (8.2%), and post-traumatic stress disorder (5.20%). A number of 50.8% of refugees had high post-traumatic growth (PTG) scores with the highest dimension was spiritual change (83.5%), while dimension openness to new opportunities (45.4%) was the lowest score. Most refugees using Emotional Focused Coping (62.9%) to solve their problems. Refugees with mixed coping style are the most experienced mental disorder (48.3%). (Table 2).

### Table 1 Demographic data of Sampang refugees in Puspa Agro Sidoarjo, December 2019

<table>
<thead>
<tr>
<th>Variable</th>
<th>N(%)</th>
<th>Mental Disorder</th>
<th>p</th>
<th>r</th>
<th>PTG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (year)</td>
<td></td>
<td>Yes (n=38)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-30</td>
<td>39 (40,20)</td>
<td>16 (41,00)</td>
<td>0.436</td>
<td>0.436</td>
<td>0.714</td>
</tr>
<tr>
<td>31-45</td>
<td>35 (36,10)</td>
<td>11 (31,40)</td>
<td>0.513</td>
<td>0.513</td>
<td>0.067</td>
</tr>
<tr>
<td>46-60</td>
<td>23 (23,70)</td>
<td>11 (47,80)</td>
<td>0.513</td>
<td>0.513</td>
<td>0.067</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Man</td>
<td>45 (46,40)</td>
<td>12 (26,70)</td>
<td>0.032</td>
<td>0.032</td>
<td>0.206</td>
</tr>
<tr>
<td>Women</td>
<td>52 (53,60)</td>
<td>26 (50,00)</td>
<td>0.032</td>
<td>0.032</td>
<td>0.206</td>
</tr>
<tr>
<td>Education level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uneducated</td>
<td>49 (50,50)</td>
<td>17 (34,70)</td>
<td>0.513</td>
<td>0.513</td>
<td>0.067</td>
</tr>
<tr>
<td>Elementary</td>
<td>27 (27,80)</td>
<td>13 (48,10)</td>
<td>0.513</td>
<td>0.513</td>
<td>0.067</td>
</tr>
<tr>
<td>school</td>
<td>21 (21,60)</td>
<td>8 (38,10)</td>
<td>0.008</td>
<td>0.008</td>
<td>0.039</td>
</tr>
<tr>
<td>Junior/senior high school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupational</td>
<td>58 (59,80)</td>
<td>16 (27,60)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jobless</td>
<td>39 (40,20)</td>
<td>22 (56,40)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Categorical variables are expressed in n (%) and PTG=post-traumatic growth

This study found that 39.2% refugees experienced mental disorders including depressive episodes (17.50%), global anxiety disorders (8.2%), and post-traumatic stress disorder (5.20%). A number of 50.8% of refugees had high post-traumatic growth (PTG) scores with the highest dimension was spiritual change (83.5%), while dimension openness to new opportunities (45.4%) was the lowest score. Most refugees using Emotional Focused Coping (62.9%) to solve their problems. Refugees with mixed coping style are the most experienced mental disorder (48.3%). (Table 2).

### Table 2 Description of types of mental Disorders, dimension of post-traumatic growth, coping strategy and previous traumatic experience in Sampang refugees in Puspa Agro, Sidoarjo, December 2019.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTSD</td>
<td>39.2%</td>
</tr>
<tr>
<td>Depression</td>
<td>17.50%</td>
</tr>
<tr>
<td>Anxiety</td>
<td>8.2%</td>
</tr>
<tr>
<td>Stress</td>
<td>5.20%</td>
</tr>
</tbody>
</table>
Types of mental disorders
Agoraphobia 4 (4.1)
Distimia 4 (4.1)
Depression episode 17 (17.5)
Global anxiety disorders 8 (8.2)
Post traumatic stress disorders 5 (5.2)
No disorders 59 (60.8)

Dimensions of PTG
Relationships with other people
High 61 (62.9)
Low 36 (37.1)

Openness to new opportunities
High 53 (54.6)
Low 44 (45.4)

Personal strength
High 72 (74.2)
Low 25 (25.8)

Spiritual change
High 81 (83.5)
Low 16 (16.5)

Appreciation in life
High 64 (66)
Low 33 (34)

Coping strategy
EFC 61 (62.90)
PFC 7 (7.20)
EFC dan PFC 29 (29.90)
Previous traumatic experience
Experiencing 94 (96.9)
None 3 (3.1)

PTG = Post traumatic growth; EFC= Emotional Focused Coping; PFC=problem focused coping

Table 3 The relationship between coping strategy and previous traumatic experience with mental disorder and post traumatic growth

<table>
<thead>
<tr>
<th>variables</th>
<th>Mental disorder</th>
<th>PTG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Coping strategy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFC</td>
<td>23 (37,70)</td>
<td>38 (62,30)</td>
</tr>
<tr>
<td>PFC</td>
<td>1 (14,30)</td>
<td>6 (85,70)</td>
</tr>
<tr>
<td>EFC dan PFC</td>
<td>14 (48,30)</td>
<td>15 (51,70)</td>
</tr>
<tr>
<td>Previous Traumatic experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experiencing</td>
<td>37 (39,40)</td>
<td>57 (60,60)</td>
</tr>
<tr>
<td>None</td>
<td>1 (33,30)</td>
<td>2 (66,70)</td>
</tr>
</tbody>
</table>

This study found that there was no significant relationship between coping strategy with mental disorders (p > 0.05). Refugees with emotional focused coping (EFC) strategies are more likely to have low PTG than refugees who use Problem Focused Coping (PFC). There was a significant relationship between coping strategy and post traumatic growth among refugees. Most of refugees in this study had experienced psychological trauma, but only 39.40% stated that their condition was currently experiencing mental disorders. The results of the bivariate test showed that there was no significant relationship between previous traumatic experience and mental disorders (p > 0.05). Most of the study subjects had experienced psychological trauma, although 58.5% of them had a high post-trauma growth rate, the rest they had a low post-trauma growth rate. The results of the bivariate analysis showed that there was no significant relationship between psychological trauma experiences and post-traumatic growth (p > 0.05)

DISCUSSION
This study result showed no significant relationship between age groups, education level and mental disorders. There was a relationship between occupation and sex with mental disorders. This finding is not inline with previous studies from Porter & Haslam (2015), Riley et al (2017) which found that there was a significant relationship between age, sex and education on the incidence of mental disorders in the refugees. Older age, female gender and higher education were some of the predictors of mental disorders in refugees [12]. We assumed possibly because the little number of samples and the refugees in this study were different in range of expulsion period, in addition, this study was induced after six years of the Sampang refugee living in the Puspa Agro rusanawa so that the complaints of mental disorders are likely to have recovered, experienced PTG growth or other forms of mental disorders that may not be diagnosed.

This study found that there was a relationship between occupation status with mental disorders. This result was inline with previous study [13] which found that work provides opportunities for refugees to become a social part of society and reduces alienation due to physical and non-physical restrictions. Economic opportunities (right to work, access to employment, maintenance of socioeconomic status) have a linear relationship with better mental health [4]. Unemployed refugees are likely to deal not only with the psychological impact of a lack of
recognize of their skill level, but also with the unhealthy physical and psychosocial environment that often accompanies low-skilled work [14].

In this study, the group age of 31-45 year had the highest average PTG score compared to other groups. This result inline with previous studies which found that the adolescent study subjects had higher PTG scores than the adolescent group, and the elderly group [15,16]. Other study found that age was not related with post traumatic growth [17]. Age was associated with personality maturity and was stable after 30 years of age and personality traits can change in response to life transition events during middle and late adulthood. Life transition events could be a work, relationship, or health related [18,19]. PTG score were higher in refugees with education level above elementary school. This result in accordance with previous study which found that refugees with lower education level had lower PTG score [16] even another studies had different results that there was no relationship between education level with PTG score [20,21]. We assumed that in this study, refugees had no formal education background but almost all of them have received an Islamic basic long school education so that the transformative values they use come from their religious knowledge and social interactions in daily life.

In the study, it was found that the post traumatic growth score was high in refugees who worked more than those who did not work. The results of this study is similar with the previous study [16]. Work occupies an important social role due to two things; the first is in the social system of society and is a form of diversion to the traumatic experience that occurs which if done continuously and consistently will reduce recurring thoughts related to trauma and transform it into a positive psychological condition [22,23]. Refugees in this study used Emotional Focused Coping which focused on emotional which involves more thoughts and actions aimed at dealing with stressful feelings resulting from stressful situations [24,25]. This result inline with previous studies [26,27]. Coping strategies choice is more because there are no other resource choices when individuals are under pressure, besides that the choice of emotion-focused strategies is considered easier and automatic [28,29]. There was no significant relationship between coping strategies and mental disorders but there is a significant relationship between coping strategy with post traumatic growth. This result in accordance with previous studies [30][31].

Most of refugees in this study had previous trauma experience. This study similar with other studies [11,32,33]. UNHCR has documented that, unlike economic migrants, most refugees of conflict have experienced brutal armed conflict, been subjected to persecution, and violence, some have witnessed the death of family members or the massacre of entire communities [34,35]. This causes trauma in several studies to be the strongest predictor of mental illness in refugees [1,11,32,33], although in several studies it was found that there was no link between previous psychological trauma and the manifestations of mental disorders of the refugees. Some of the factors that are thought to be the cause are the duration of the event, the coping strategies of the refugees, and post migration psychosocial stress [17,36].

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Systematic Reviews in Pharmacy Vol 11, Issue 5, May-Jun 2020
Relationship between Previous Traumatic Experience, Post-Traumatic Growth, Coping Strategy to Mental Health State on Refugees in Sidoarjo Camp

of War Related Stress Symptoms and Posttraumatic Growth Community Ment. Health J 46 10–9