

Optimistic: Building Subjective Well-being and Post Traumatic Growth on Post-mastectomy Women

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Abstract: Losing the anatomy of the body will bring psychological pressure. For women, losing parts of the body that have symbolic benefits such as breast will lead them to extreme emotional response. Mastectomy is one of breast cancer treatment that makes a woman lose one or all of her breasts. This study was conducted to examine the role of optimism in post-traumatic development in post-mastectomy women with subjective well-being as a variable mediator. Instruments used in this study were post-traumatic growth questionnaires, subjective well-being questionnaires, and optimistic questionnaires. Data were collected from 78 post-mastectomy patients and chemotherapy or radiation therapy treatments. Regression Hayes Process statistical techniques used to analyse data. Results showed that optimism provides subjective prediction and positive relation direction with subjective well-being. Therefore, an increase of optimism will affect subjective well-being to increase as well. Optimism also found to be significant in predicting post-traumatic growth. However, subjective well-being may not necessarily directly increase post-traumatic growth of post-mastectomy breast cancer patients.

1 INTRODUCTION

World Health Organization (WHO) noted that cancer as one of leading cause of death worldwide, especially to underprivileged and developing countries. Data and Information Center Ministry of Health Republic of Indonesia (2015) reported that prevalence of cancer patients on all ages population in Indonesia has reached 1,4% from approximately 254,9 million citizens as equal to 356,860 people. Therefore, Minister of Health Republic of Indonesia declared a Cancer Elimination Commitment in Indonesia as coincided with World Cancer Day on February 4th, 2015. The most common type in Indonesian women is breast cancer and cervical cancer. Jawa Pos (2017) found that on 2012-2015, breast cancer patient in Public Local Hospital dr. Soetomo Surabaya attained to 7,743 patients.

Managements on cancer patients consisted of surgery, chemotherapy, radiation therapy, hormone therapy, and immunology therapy (Cancer Council Australia, 2016). There is various type of surgeries on cancer, including mastectomy, which referred to surgery on breast cancer patients to remove the entire breast. Furthermore, Lismidiati, Setyowati, and Afyanti (2011) stated that the loss of specific

anatomy of body parts which has symbolic meaning on women (e.g. breasts) would cause extreme emotional response. This statement indeed supported as post-surgery experience specifically to losing certain body anatomy such as breasts on mastectomy surgery on women could cause psychological distress symptoms (e.g. anxiety, angry, confused, depression) (Mirowsky and Ross, 2002; Lepperta, Legrob and Kjerulff, 2007; Drapeau, Marchand and Beaulieu-Prévost, 2012).

Post-mastectomy women would experience uncomfortable feelings, stress, even trauma. Trauma itself could be defined as post-traumatic stress disorders (PTSD), which described as utmost response towards heavy stressor, increased anxiety, avoiding stimulus that associated to certain trauma, dullness on emotional response, and symptoms occurred for more than a month (Kring, Johnson, Davison and Neale, 2012). On the other hand, there were also women who managed to continue their life and developed themselves in positive dispositions after mastectomy and getting through medication. Taylor (1998) and Wortan (2009) emphasized that stressful event in life could brought changes to positive experience as a result of struggle with traumatic event. Moreover, Seligman and

Csikszmihalyi (2000) along with Tedeschi and Calhoun (2004) explained that implementation of individual resiliency concepts who experienced trauma were known as post-traumatic growth.

Post-traumatic growth defined as positive psychological changes which indicated by relationship to others, new possibilities, personal strength, spiritual change, and appreciation to life (Tedeschi and Calhoun, 1996). These indicators were most likely to occurred among post-mastectomy women (Mahlela and Hartini, 2008; Rahmah and Widuri, 2011; Rachmawati and Halimah, 2015).

Furthermore, internal processes became the main determinant to influenced and controlled process of acquiring psychologically well-being (Compton, 2005; Snyder and Lopez, 2007). Studies on positive mental health and positive psychology believe that human has positive basic potential to guide them reached balance in their life. In addition, this human potential will help human survive in their life. To conclude, current research aimed to explore internal processes specifically optimism role towards post-traumatic growth through subjective well-being as mediator on post-mastectomy breast cancer patient.

2 METHODS

This current research was a survey study that used questionnaire to collect data. Three instruments were used in this study, namely post-traumatic growth questionnaire, subjective well-being questionnaire, and optimism questionnaire. Data were collected from 78 post-mastectomy breast cancer patients and went through chemotherapy medication (i.e. radiation therapy).

Post-traumatic growth instrument used in current research was adapted from Post-Traumatic Growth Inventory (PTGI) by Tedeschi and Calhoun (1996). PTGI consisted of five dimensions comprised of relationship to others, new possibilities, personal

strength, spiritual change, and appreciation to life. This instrument consisted of 21 items ($\alpha = 0,73$).

Subjective well-being scale was composed by researcher based on concept of subjective well-being by Diener (1984). According to Diener (1984), subjective well-being emphasized happiness on cognitive and affection aspects. Well-being referred to individual evaluation on their life, including cognitive appraisal towards their life satisfaction and affection appraisal to their mood and emotions. Well-being itself could be seen from two dimensions namely life satisfaction and occurrence of positive or negative affect. This scale consisted of 10 items ($\alpha = 0,78$).

Furthermore, optimism scale was adapted from Life Orientation Test Revised Optimism Scale (Scheider, et. al., 1994; Peterson, 2000). Optimism described as individual response who has expectations in the future. Optimistic person will include efforts to overcome difficulties, attempted to reach goals, and evaluated their expectation of success. They also expect good things will happen in the future. This scale consisted of 10 items ($\alpha = 0,83$).

Data were analyzed using Regression Process Hayes statistical techniques with SPSS 2.0 Program for Macintosh. Analysis was done using subjective well-being variable as mediator in order to illustrated participants' post-traumatic growth on every aspect of PTG itself. In conclusion, present research hypothesized that optimism significantly influenced post-traumatic growth among post-mastectomy breast cancer patients that went through chemotherapy medication or radiation therapy with subjective well-being as mediator variable.

3 RESULTS

The result of regression analysis to predict subjective well-being from optimism is shown in Table 1.

Table 1: Regression Analysis to Predict Subjective Well-Being from Optimism

| Outcome: SWB | | | | | | |
|---------------|----------------|-------|--------|-------|--------|--------|
| Model Summary | | | | | | |
| R | R ² | MSE | F | df1 | df2 | P |
| 0,151 | 0,227 | 3,920 | 1,768 | 1.000 | 76.000 | 0,188 |
| Model | | | | | | |
| | Coeff | Se | T | P | LLCI | ULCI |
| constant | 35,833 | 1,207 | 29,676 | 0,000 | 33,428 | 38,237 |
| OPT | 0,037 | 0,281 | 1,323 | 0,187 | -0,019 | 0,093 |

Optimism found to be significant in predicting subjective well-being ($b = 0,04$; $t = 1,32$; $p = 0,19$; $R^2 = 0,227$) which accounted for 2% of the variation in predicting subjective well-being. Moreover, positive correlation also found between optimism and subjective well-being which shown by b positive value. Based on this correlation, the increase of value optimism will be followed by the increase of subjective well-being (Field, 2013).

Result of correlation between post-traumatic growth to other variables (i.e. subjective well-being and optimism) can be seen in Table 2. Based on the results, optimism shown to be significantly influenced to post-traumatic growth ($p = 0,000$; $\alpha < 0,05$), which indicated that optimism were able to predict post-traumatic growth significantly while including subjective well-being in analysis model. In contrast, post-traumatic growth found to be irrelevant in predicting subjective well-being ($p = 0,837$).

Table 3 provided total effect model on optimism and post-traumatic growth mediation model. According to Field (2013), total effect model referred to predictor effect towards analysis results by excluding mediator variable from the model (i.e. correlation between optimism and post-traumatic growth). Based on Table 3, it could be seen that optimism was able to predict post-traumatic growth notably ($p = 0,000$) by excluding subjective well-being from the model. Moreover, this model accounted for 88,3% to explained post-traumatic

growth. In addition, if subjective well-being included to model, positive correlation was found between optimism and post-traumatic growth ($b = 2,284$).

In addition to total effect model, indirect effects also obtained from mediation results which explained optimism variable and post-traumatic growth (Table 4). Based on Table 4, indirect effects of optimism to post-traumatic growth estimated in 0,003. Moreover, an accurate estimate of indirect effects can be seen from b value (i.e. BootLLCI and BootULCI values).

Table 4. Indirect Effects from Mediation Model

| Indirect effect of X on Y | | | | |
|---------------------------|--------|---------|----------|----------|
| | Effect | Boot SE | BootLLCI | BootULCI |
| SWB | 0,003 | 0,017 | -0,027 | 0,045 |

As stated by Field (2013), if b value on indirect effects did not showed zero results then it could indicate an occurrence of indirect correlation between independent variable and dependent variable. In other words, mediator variable could mediate between these variables. As shown in Table 4, BootLLCI value and BootULCI value appeared at -0,027 and 0,045 respectively, which means that estimated value of indirect effect in this model lied between -0,027 to 0,045. Since zero results appeared within those range, it can be said that influenced of

Table 2: Correlation Between Post-Traumatic Growth to Subjective Well-Being and Optimism

| Outcome: PTG Model Summary | | | | | | |
|-------------------------------|----------------|--------|---------|-------|---------|--------|
| R | R ² | MSE | F | df1 | df2 | P |
| 0,939 | 0,884 | 45,507 | 284,381 | 2.000 | 75.000 | 0,000 |
| Model | | | | | | |
| | coeff | se | T | P | LLCI | ULCI |
| constant | -9,208 | 14,596 | -0,631 | 0,530 | -38,285 | 19,868 |
| SWB | 0,081 | 0,391 | 0,206 | 0,837 | -0,698 | 0,859 |
| OPT | 2,281 | 0,969 | 23,544 | 0,000 | 2,088 | 2,474 |

Table 3: Total Effect Model of Optimism and Post-Traumatic Growth Mediation

| Outcome: PTG Model Summary | | | | | | |
|-------------------------------|----------------|--------|---------|-------|---------|-------|
| R | R ² | MSE | F | df1 | df2 | P |
| 0,939 | 0,883 | 44,933 | 575,976 | 1,000 | 76.000 | 0,000 |
| Model | | | | | | |
| | coeff | se | T | P | LLCI | ULCI |
| constant | -6,324 | 4,088 | -1,547 | 0,126 | -24,466 | 1,818 |
| OPT | 2,284 | 0,095 | 23,999 | 0,000 | 2,095 | 2,474 |

optimism towards post-traumatic growth and mediated by subjective well-being has unremarkable figures.

In conclusion, current study showed that subjective well-being insignificantly mediated directly towards post-traumatic growth. Therefore, subjective well-being was not necessarily increased post-traumatic growth directly among breast cancer post-mastectomy patients.

4 DISCUSSIONS

Person who diagnosed with cancer and required to went through various therapy would experience stressful period which could affect their psychological aspects and social skills (Ho, Rajandram, Chan, Samman, McGrath and Zwahlen, 2011). Furthermore, post-mastectomy patients and were undergoing on medication (e.g. chemotherapy or radiation therapy) tend to showed fluctuate emotional changes. These progression of emotional states could be referenced to concepts by Kubler Ross (Santrock, 2015) which explained five stages of grief to denial, anger, bargaining, depression, and acceptance. Therefore, most of post-mastectomy and undergoing medication patients would still be in first several phase (i.e. denial, anger, and depression phase) due to their experienced of sickness and illness on pain they felt as consequence of chemotherapy and radiation therapy. Moreover, these sickness, illness, and pain would cause anxiety, hopelessness, and insomnia (Hartini, 2004).

Eventually, post-mastectomy patients would gradually enter bargaining and acceptance phase, even it would take some time differently for each patients. Once they reached to acceptance, patients would be able to envisioned their future, decreased their anxiety, hopelessness, and insomnia. These phase could affect the ability to formed optimism among patients to lived life after suffered such illness. According to Ho, et. al. (2011), positive coping strategy (e.g. hope and optimism) were assumed to be significantly influenced individual post-traumatic growth.

Self-acceptance and optimism among post-mastectomy patients would induced positive feelings, satisfaction against life experiences which they have been through, along with increased in positive affect while lowered in negative affect. These psychological state reflected patients subjective well-being. Moreover, it has been known optimism that accompanied by social support would

take part as protective factors in preventing stress to post-mastectomy patients (Applebaum, Stein, Lord-Bessen and Pessin, 2014). Therefore, a high level of optimism could reduce anxiety and depressive symptoms. Other than that, optimism was known to be able to improved better quality of life among patients.

Study by Scheier and Carver (1985; 1992); Scheier, et. al. (1999); and Schneider (2001) found that optimism could resulted in both psychological and physical healthiness. Optimistic person would adopt healthy behavior to their life as an effort to maintain their health state. While Kivimaki, et. al. (2005) also stated that pessimistic and hopeless individual would invested less effort to adopted healthy lifestyle which resulted in rather negative psychological and physical healthiness than positive.

Based on previous discussion above showed that breast cancer patients could achieve post-traumatic growth. As Wortman (2009) and Mahelda and Hartini (2011) also supported those statement describing two factors that were able to developed post-traumatic growth namely cognitive processing and disclosure. Furthermore, Rahmah and Widuri (2011) stated that post-traumatic growth affected by external and internal factors. External factors referred to family support (e.g. husband, children, grandchild, parents, and siblings) while internal factors covered spirituality factors and reframing.

Optimism significantly impacted on subjective well-being amongst post-mastectomy patients, as it brought out positive response and expectations to future. Optimistic patients would constantly put effort to coped with difficulties and achieved recovery. Moreover, internal process also known as main determinant to affect and controlled the process in acquiring subjective well-being. Meanwhile, subjective well-being itself was indirectly influenced post-traumatic growth. Indicators of post-mastectomy patients who managed to achieve post-traumatic growth were individual that able to maintained harmonious relationship to others, determined new possibilities, acquiring personal strength, had a spiritual change by devoting themselves to God, and capable to appreciate their life.

There is however limitation to this research regarding participants and control variable. Insufficient number of participants in current research has caused inability to generalized results in this study. Additionally, researcher did not control participants background criteria such as education background and socioeconomic status.

5 CONCLUSIONS

Post-mastectomy women on undergoing medication need optimism to recovered themselves. Optimism were notably significant in predicting subjective well-being, whereas increased optimism would be followed by increased subjective well-being as well. Likewise, optimism also significantly affected post-traumatic growth, in which high level of optimism could strengthened post-traumatic growth. In conclusion, internal motivation to recovery and social support would help patients through their medication thoroughly.

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