Critique Analysis

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**Introduction**

Persistent, accidental, and irrepressible ruminative feelings are the indication of depression and also been linked with susceptibility to the beginning and reappearance of depressing episodes. The study was conducted to see the effects of emotional words, positive, negative, and neutral, on working memory by Joormann and colleagues in 2011. It has been observed in previous studies that the cognitive rigidity is linked with rumination. In this study, it was also under consideration to acquire an improved understanding of whether cognitive rigidity increases rumination or not (Joormann, Levens, & Gotlib, 2011). The structured interviews of 53 participants were conducted for the research. It was evident that the control groups have lower sorting costs. When introduced negative words in the depressive group, the sorting costs were higher. The positive and neutral words introduction and presentation were not predicted in the study. While this article detected noteworthy positive consequences and the results were in line with the hypothesis that the negative words are associated with difficulty in functioning of working memory. Cognitive rigidity was associated with amplifying depression and rumination. The critique analysis of the article (Joormann et al., 2011) produced significant results by using cross-sectional study methods and design to assess and recognize the association between rumination and depression with working memory.

**Article Summary**

The researchers conducted structured interviews with 53 participants. The participants were called for the research by advertising in the community broadsheet. Designed clinical interview was arranged by the skilled examiners using interview for DSM-IV Axis I Disorders (First, Spitzer, Gibbon, & Williams, 1996). Participants in the depressed groups were 26 meetings; the inclusion criteria for Major Depressive Disorder. A comparison of these participants with the control group (n= 27) was completed in the study. It was perceived how these members would answer to the presentation of negative and sad emotional states and signs of dysphoria. The participants were introduced with 180 positive, 180 negative, and 180 neutral nouns (Joormann et al., 2011). Stimulation and valence ratings were observed on the 9-point scale. From previous studies, it was evident that the arrears in working memory trigger ruminative replies in anxiety (Joormann et al., 2011). The researchers have selected an important topic to assess the association of rumination and depression by manipulation in working memory.

Specific mindset and cognitive rigidity also lead to depression. Studies have suggested that cognitive flexibility is associated with improvement in patients with depression (Shapero et al., 2018). Cognitive impairment and rigidity prevent information from entering in working memory, which leads to the symptoms of sadness and depression. Also, it prevents the removal and deletion of previously held negative incidents from working memory. Working memory is a part of cognitive memory which is directly involved in the fabrication of decision making and performance. By manipulation and organized management in updating the information in working memory, depression, and ruminating thoughts can be improved (Yang, Cao, Shields, Teng, & Liu, 2017). Through this updating, problem-solving cognitive behavior can also be improved. It was difficult for the members with MDD to manipulate and update information in working memory. However, the effects were intensified with negative words. This may happen because the ruminators turn out to be trapped on recurring feelings that rotate around a definite subject and have trouble flexibly swapping to a novel sequence of thought. This represents troubling in the manipulation of material present in working memory.

Certainly, control members did not validate the discrepancy in sorting costs for all these words. All these words include positive, negative, and neutral words (Joormann et al., 2011). The members with MDD showed expressively greater sorting costs when introduced by negative words. The sorting costs for positive and neutral words remained unchanged. These conclusions matched the results with earlier researches conducted on working memory function in depression. As it represents that MDD is connected with trouble possessing inappropriate negative information from inflowing working memory (Shapero et al., 2018). It also represents that individuals with MDD face difficulty in the manipulation of negative thoughts in working memory. However, this study could not recognize the evidence of how and why some members were disposed to ruminate, and it was easy for others in reorientation and recovering. It was maybe persons stayed stuck in negative thoughts in working memory that inhibits them from recovering.

**Article Critique**

The researchers have conducted the study, which provides significant results that arrears and deficits in working memory can stimulate a ruminative response. There is a strong association between depression and manipulation of thoughts in working memory. Individuals who failed to manipulate and update information in working memory would suffer depression like in individuals with Major Depressive Disorder (Shapero et al., 2018). But the study participants or sample size was very small, only 26 participants were offered for interviews to collect the data. With this small-sized sample, it would be challenging for the specifying results to a large population. Also, the participants were represented from a single clinic or hospital; this limits the results for the larger population. There will be other factors that can manipulate results when generalizing over a larger population.

The introduction of structured interviews is an important and useful tool for the research problem. It is also evident from other studies that prolonged negative thoughts and negative incidents are the hallmark sign for MDD (Shapero et al., 2018). This study, however, could not identify the underline causes of the difficulties faced by the individuals in manipulating thoughts in the working memory. It is suggested from other studies that cognitive rigidity and cognitive biases are the significant reasons for depressive episodes (Shapero et al., 2018). The study reviews the cognitive deficits and its association with working memory, which shows that the subject or the study is an important discussion, and inspiring awareness specifically for patients with Major Depressive Disorder.

Depression, anxiety, and other mental disorders are prevalent psychiatric problems in the recent era. It has been observed that cognitive impairment is somehow linked with depression. It was not clear how and in what ways it is related and associated with the negative incidents. By the study (Joormann et al., 2011), this has been proved that there is a positive association between depression and rumination with working memory (Chiu et al., 2018). This study has not provided any data related to the improvement in the symptoms of Major Depressive Disorder; however, it has opened an endeavor that open-minded thoughts, cognitive flexibility, and imprints of positive thoughts can improve cognitive impairment in patients with Major Depressive Disorder. Prolonged and continuous introduction of strategies that can change and help in removing negative thoughts from working memory can reduce signs of depression in patients suffering from Major Depressive disorder (Yang et al., 2017). The results can be beneficial and helpful in the improvement of the efficiency of treatment strategies used for Major Depressive disorder.

**Conclusion**

The study has detected noteworthy outcomes in detecting the association of negative thoughts and incidents and difficulty in manipulation for working memory (Joormann et al., 2011). Though the small sample size but it is evident that there is some positive association between sticky thoughts, negative thoughts, and it is difficult for the working memory to manipulate and update information received. Working memory remains stuck and obstructed between previous thoughts and incidents happened (Shapero et al., 2018). This has released an endeavor to be explored and discovered to improve working memory manipulation as this would be helpful and beneficial for the patients suffering from Major Depressive Disorder (Shapero et al., 2018). Negative thoughts and undesirable events can intensify the depressive episodes (Joormann et al., 2011). Though the sample size used has made the research challenging to generalize the results over a large population, but a noteworthy association in line with the hypothesis has been appraised (Chiu et al., 2018). Stubborn, and uncontrollable ruminative feelings are the symptoms of depression and are connected with susceptibility to the reappearance of depressing events.

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