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COGNITIVE EMOTION REGULATION STRATEGIES AND POST TRAUMATIC STRESS DISOREDER AMONG POLICE PERSON

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ABSTRACT

The study entitled as "**Cognitive Emotion Regulation Strategies and Post Traumatic Stress Disorder among Police Person"**. The study aims to understand the type of cognitive emotion regulation strategy and post-traumatic stress disorder (PTSD) used by police person, and to understand the role of cognitive emotion regulation strategy in developing PTSD. The data was collected from 150 police person worked in Trivandrum using Personal Data sheet, scale of Cognitive Emotion Regulation Questionnaire (CERQ) (Dr. Nadia Garnefski and Dr. Vivian Kraaji, 2001) and PTSD symptom scale (PSS-1-5) (Elizabeth A. Hembree, Edna B, Foa, & Norah C. Feeny, 2013). The result showed that all police person has PTSD symptoms. In the present research result show that there is a significant weak negative correlation in the sub variable of CERQ refocus on planning (0.-174) at 0.05 level, rumination (-0.164) at 0.05 level in development of PTSD. And also a significant weak positive correlation within the CERQ variable rumination and positive reappraisal (0.207) at 0.05 level, rumination and putting into perspective (0.264) at 0.01 level, and positive reappraisal and putting into perspective (0.175) at 0.05 level. A significant weak negative correlation with the CERQ variable refocus on planning and positive reappraisal (-0.162) at
0.05 level. Although the cognitive emotion regulation strategies can be directly related to PTSD symptoms or many negative emotional symptoms the present study results indicate the possibility of other underlying factors that may influence the development of PTSD.

CHAPTER 1

INTRODUCTION

1.1 CONTEXT OF THE STUDY

Police services always have been one of the most challenging services in India. And also it‟s a very stressful job. They are faced with angry mob, accident, death, traffic control, political rallies, religious festival, crowd control etc. in their duty hours. Sometimes they have to work extra duty when any emergency cases occurred. Superior officer‟s pressure, media harassment at the time of delayed investigation, political pressures also affects the police mind set. They spend most of the time at work or corresponding duties. They have to face potentially hazardous situations that can result in physical or mental trauma or even death in the line of duty. If any emergency situations occur they must attend that case in the order of superior officers. At that time their

physical condition, family events, their opinion are not considered. This is because of their job nature. This may lead to sleep disturbances, physical illness, and also affect their mental ability. And also it will be affect their relationship with their family and personal time.

Police officers are routinely exposed to situations that elicit intense negative emotions. In their daily work routine they are faced with lots of negative situations. Sometimes it need not be expressed to their nearest one. Because of lack of time during duty and absence of trusted one they may not be able to share their feelings. Their job nature and investigation of cases require high confidentiality, for this reason most of the police officers are not able to share their negative emotions to others.

Most of the people have experienced one kind of small and big stress in their daily life. And for some people who experience serious and traumatic events. Police officers are one of the group individuals who have experienced that kind of traumatic experiences during their duty. All individuals differ from each other. Throughout the developmental stages of their life it will change from one to another. All individuals come from different context or settings of development. Which means their family, neighbourhood, peer group, community etc. such as are examples of context.

Police officers experience traumatic events during their duty hours. The traumatic experiences may lead to a psychological disorder; one of them is post-traumatic stress disorder (PTSD). Due to this experience constant psychological and physical pain and suffering from the impairments of daily life functioning persists even after a long time since the occurrence of trauma. However, not all people who experience traumatic events develop PTSD. Most people overcome traumatic experiences and gradually adapt to their daily lives over time. Despite experiencing similar trauma events, the impact can vary depending on individual differences. The individual factors such as cognitive capacity, mental ability, personality type etc. determines the vulnerable factors that lead to the onset and maintenance of PTSD which is very important in understanding PTSD and developing an effective treatment plan.

The cognitive coping strategy to traumatic events is one of the important factors affecting the development of psychological problems, such as PTSD. This means if the same traumatic events experienced by different individuals, but the cognitive differences in interpreting and accepting traumatic events can lead to different psychological impact in them. Ehlers and Clark (2000) also suggested a model that places an importance of the cognitive process to explain persistent symptoms of PTSD.

Cognitive emotion regulation strategies

Cognitive emotion regulation (CER) is described as the “conscious, mental strategies individuals use to cope with the intake of emotionally arousing information”. And it‟s also refers to the ability to manage one‟s own emotional reactions when facing negative events (Thompson, 1991). Garnefski et al. (2001) identified nine type of cognitive emotion regulation strategies, and it involves four maladaptive and five adaptive strategies. The four maladaptive CER strategies are self-blame, rumination, catastrophizing, other blame, and they can lead to psychological and emotional problems such as depression, anxiety or risky behaviours. By contrast, acceptance, positive refocusing, refocus on planning, putting into perspective and positive reappraisal are the five adaptive strategies that are related to better mental health and well-being. These strategies address the self-regulatory, conscious, and cognitive components of emotion. A brief description of the nine strategies are given below

- Self-blame – the causal attribution of negative events to one self.
- Other-blame – the causal attribution of negative events to others
- Rumination – overthinking emotions and thoughts associated with negative events
- Catastrophizing – explicitly emphasizing the consequences of negative events

- Putting into perspective – relativizing a negative event by considering the impact over time
- Positive refocusing – keeping attention on pleasant thoughts after the occurrence of negative events.
- Positive reappraisal – finding the silver lining by creating a positive meaning to negative events
- Acceptance – accepting and not changing a negative situation or the emotions caused
- Refocus – thinking about what steps to take and how to handle the negative events

Post-traumatic stress disorder

In Post-traumatic stress disorder the person must have been exposed to a stressful event or situation (either brief or long lasting) or exceptionally threatening or catastrophic nature, which would be likely to cause pervasive distress in almost anyone (ICD-10). In 2013, the American Psychiatric Association revised the PTSD diagnostic criteria in the fifth edition of its Diagnostic and Statistical Manual of Mental Disorders (DSM-5). PTSD is included in a new category in *DSM-5*, Trauma- and Stressor-Related Disorders. All of the conditions included in this classification require exposure to a traumatic or stressful event as a diagnostic criterion. DSM-5 introduced a preschool subtype of PTSD for children ages six years and younger (Military & Veterans, 2018). The criteria below are specific to adults, adolescents, and children older than six years. All of the criteria are required for the diagnosis of PTSD.

Criterion A: stressor (one required)

The person was exposed to: death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence, in the following way(s):

- Direct exposure
- Witnessing the trauma
- Learning that a relative or close friend was exposed to a trauma
- Indirect exposure to aversive details of the trauma, usually in the course of professional duties (e.g., first responders, medics)

Criterion B: intrusion symptoms (one required)

The traumatic event is persistently re-experienced in the following way(s):

- Unwanted upsetting memories
- Nightmares
- Flashbacks
- Emotional distress after exposure to traumatic reminders
- Physical reactivity after exposure to traumatic reminders

Criterion C: avoidance (one required)

Avoidance of trauma-related stimuli after the trauma, in the following way(s):

- Trauma-related thoughts or feelings
- Trauma-related external reminders

Criterion D: negative alterations in cognitions and mood (two required)

Negative thoughts or feelings that began or worsened after the trauma, in the following way(s):

- Inability to recall key features of the trauma
- Overly negative thoughts and assumptions about oneself or the world
- Exaggerated blame of self or others for causing the trauma
- Negative affect
- Decreased interest in activities
- Feeling isolated
- Difficulty experiencing positive affect

Criterion E: alterations in arousal and reactivity

Trauma-related arousal and reactivity that began or worsened after the trauma, in the following way(s):

- Irritability or aggression
- Risky or destructive behaviour
- Hyper vigilance
- Heightened startle reaction
- Difficulty concentrating
- Difficulty sleeping

Criterion F: duration (required)

Symptoms last for more than 1 month.

Criterion G: functional significance (required)

Symptoms create distress or functional impairment (e.g., social, occupational).

Criterion H: exclusion (required)

Symptoms are not due to medication, substance use, or other illness.

Symptoms of PTSD

PTSD symptoms may start within one month of traumatic events, but sometimes symptoms may not appear until years after the event. These symptoms cause significant problems in social work situation and in relationships. They can also interfere with the ability to go about the normal daily tasks. PTSD symptoms are generally grouped into four types: intrusive memories, avoidance, negative changes in thinking and mood, and changes in physical and emotional reactions. Symptoms can vary over time or vary from person to person

Intrusive memories

- Recurrent, unwanted distressing memories of the traumatic event.
- Reliving the traumatic event as if it were happening again(flashbacks)
- Upsetting dreams or nightmares about the traumatic event
- Severe emotional distress or physical reactions to something that reminds you of the traumatic event

2. **Avoidance**
    - Trying to avoid thinking or talking about the traumatic event
    - Avoiding places, activities or people that remind you of the traumatic event
3. **Negative changes in thinking and mood**
    - Negative thoughts about yourself, other people or the world
    - Hopeless about the future
    - Memory problems, including not remembering important aspects of the traumatic event
    - Difficulty maintaining close relationships
    - Feeling detached from family and friends
    - Lack of interest in activities you once enjoyed
    - Difficulty experiencing positive emotions
    - Feeling emotionally numb
4. **Changes in physical and emotional reactions**
    - Being easily started or frightened
    - Always being on guard for danger
    - Self- destructive behaviour, such as drinking too much or driving too fast
    - Trouble sleeping
    - Trouble concentrating
    - Irritability, angry outburst or aggressive behaviour
    - Overwhelming guilt or shame

Causes of PTSD

Types of events that can lead to PTSD include:

- Serious accidents
- Physical or sexual assault
- Abuse, including childhood or domestic abuse
- Exposure to traumatic events at work, including remote exposure
- Serious health problems, such as being admitted to intensive care
- Childbirth experiences, such as losing a baby
- War and conflict
- Torture

Treatment of PTSD

The main treatments of PTSD are psychological therapies and medication. A combination of psychological therapy and medication may be recommended if you have severe or persistent PTSD. There are 3 main types of psychological therapies used to treat people with PTSD.

1. **Cognitive behavioural therapy (CBT)**

Cognitive behavioural therapy (CBT) is a type of therapy that aims to help you manage your problems by changing how you think and act. Trauma-focused CBT uses a range of psychological techniques to help you come to terms with the traumatic event. You‟ll usually have 8 to 12 weekly sessions of trauma-focused CBT, although fewer may be needed. Sessions usually last for around 60 to 90 minutes.

2. **Eye movement desensitisation and reprocessing (EMDR)**

Eye movement desensitisation and reprocessing (EMDR) is a relatively new treatment that's been found to reduce the symptoms of PTSD. It involves making side-to-side eye movements, usually by following the movement of your therapist's finger, while recalling the traumatic incident. Other methods may include the therapist tapping their finger or playing a tone. It's not clear exactly how EMDR works, but it may help you change the negative way you think about a traumatic experience.

3. **Group therapy**

Some people find it helpful to speak about their experiences with other people who also have PTSD. Group therapy can help you find ways to manage your symptoms and understand the condition. There are also a number of charities that provide counselling and support groups for PTSD.

- Combat Stress – a military charity specialising in helping ex-servicemen and women
- Rape Crisis – a UK charity providing a range of services for women and girls who have experienced abuse, domestic violence and sexual assault
- Victim Support – providing support and information to victims or witnesses of crime
- CRUSE – a UK charity providing support and information for people who have experienced bereavement

4. Medication

Antidepressants, such as paroxetine, sertraline, mirtazapine, amitriptyline or phenelzine, are sometimes used to treat PTSD in adults. Of these medications, only paroxetine and sertraline are licensed specifically for the treatment of PTSD. But mirtazapine, amitriptyline and phenelzine have also been found to be effective and may be recommended as well.

These medications will only be used if:

- you choose not to have trauma-focused psychological treatment
- psychological treatment would not be effective because there's an ongoing threat of further trauma (such as domestic violence)
- you have gained little or no benefit from a course of trauma-focused psychological treatment
- you have an underlying medical condition, such as severe depression, that significantly affects your ability to benefit from psychological treatment

Amitriptyline or phenelzine will usually only be used under the supervision of a mental health specialist. Antidepressants can also be prescribed to reduce any associated symptoms of depression and anxiety, and help with sleeping problems. But they're not usually prescribed for people younger than 18 unless recommended by a specialist. If medication for PTSD is effective, it'll usually be continued for a minimum of 12 months before being gradually withdrawn over the course of 4 weeks or longer. If a medication is not effective at reducing your symptoms, your dosage may be increased. Before prescribing a medication, your doctor should inform you about possible side affects you may have while taking it, along with any possible withdrawal symptoms when the medication is withdrawn.

Police officers experience more traumatic events during their duty time. Most of their time is spent for duty or work. During their daily duty hours they are faced with different kinds of negative incidents and emotions. All police personnel have experienced similar kind of negative or traumatic events. But their coping strategies related to the negative events are different from each other. Because their coping mechanisms differ from others their mental ability, cognitive process is extremely changeable and different. After experiencing traumatic events they may or may not develop depressive symptoms or other psychological disorders, like PTSD. The reason why cognitive emotion regulation strategies and PTSD in police officers is because they face lots of traumatic events and daily in will be seen a development of PTSD. But most police officers may not develop PTSD for many reasons and one of which could be difference in coping strategies. The difference of the coping strategies used by the police who develop PTSD or not on the basis of the cognitive emotion regulation strategies needs to be studied to see if it has a major impact on what individual coping strategy may contribute to the development of PTSD.

NEED AND SIGNIFICANCE

Most police workers are experienced in handling hostage situations. Their nature of job is highly risky and challengeable. Police officers are exposed to enduring emotional distress, as they confront with potentially traumatic mission events and chronic work related stress. They are required to respond to a variety of emergency situations involving human suffering, danger, death, face chronic diseases, natural disasters (flood, tsunami, earth quake etc.) and calamities. They have to face lots of emergency situation. Depending on the importance and nature of the investigation, the time schedule changes. That time the police officers experience lots of stress. It affects their mental capability, physical ability and cognitive capacity. The researcher had conducted semi structured interviews with police officers for identifying their problems prior to the study, that time most of the police officers have said they can‟t sleep well, physical illness such as blood pressure, memory problems, anger management issues are experienced after joining the police job.

Their occupational work includes providing first aid medical assistances to injured people and rescuing humans from accidents, fires, floods, or other natural and human made disasters. Consequently, police officers are regularly confronted with traumatic events. (Regehr et al., 2002; Marmar, 2006). That is, they are confronted directly or witnessing with actual or threatened death, serious injury, sexual violence, and serious aversive details of those events. These situations go along with physical, psychological and emotional stress. This means police officers are at higher risk for experiencing strong negative emotions such as worry, fear, and disturbed sleep or concentration (Van Der Ploeg and Kleber, 2003;Benedek et al.,2007;Halpern et al.,2009;Donnelly et al.,2016), which in turn promotes the development of physical and mental health problems. Police officers are confronted with traumatic events on duty. it will be higher risk of clinically significant and often comorbid depressive and post traumatic symptoms as well as physical complaints (Sfullerton et al., 2004; wild et al., 2006; Donnelly, 2012) after their duty related trauma events exposure, if a person has relatively individual vulnerability for mental health problems may further be precipitated regardless of whether they are exposed to or not to work related traumatic events or in their private life. (Maunder et al., 2012)

Besides the experiences of traumatic events, the burdens of police officers is further complicated by their work load, resulting from adverse working condition such as shift work and its negative consequences on physical and mental health.(Frank and Ovens, 2002). Further factors related to stress are false alarm, time pressure, tensed relationship with colleagues and managers, economic situations in which work load, job insecurity, and reduction of wages have a negative impact on their physical health, mental health and also emotional health. And also economic recession has a major impact and increased susceptibility towards development of mental illness. Unfavourable working conditions leads to high level of stress. The stress can represent an underlying biological mechanism in the development of mental disorders such as depression and PTSD. (Gola et al., 2013; Boeck et al.,2016). In total of this, several factors might lead to the perception of increased work related stress in police officers which will increase the susceptibility to develop post traumatic, depressive and somatic symptoms. (Aasa et al., 2005; Wild et al., 2016). These mental and physical problems can in turn cause sickness related absence from work earlier retirement and even complete withdrawal from the job. (Hammer et al., 1986; Chapman et al., 2009; Razik et al., 2013).

Given the work related stress and constant exposure to potential traumatic events during duty, the ability to deal with negative emotions seems to constitute a crucial component in the daily duties of police officers. It will determine whether they would stay healthy and carry out their work properly. Emotion regulation is defined as an overall all process by which individual influence which emotion they have, when they have them, and how they experience and express them.(Gross, 1998, 2015). While several emotion regulation strategies have been associated with personal wellbeing, physical and mental health (adapting strategies), others have been associated with the vulnerability to develop problems. (Maladaptive strategies; Aldao and Nolenhoeksema, 2010). The cognitive emotion regulation strategies used may have a role in whether an individual will develop PTSD or not. It would be helpful to identify which cognitive emotion regulation strategies may lead to increased risk of developing PTSD and depressive symptoms. This in turn may help in aiding enhancing appropriate intervention strategies for the police personnel. There is a growing need to explore the relation between cognitive emotion regulation enhancement strategies and development of PTSD and depressive symptoms in police personnel for their mental health well- being and improve their life.

Many studies show that the police personal have high occupational stress (Manaswithetal et al., 2018). The assessment of cognitive emotion regulation is an important and relevant topic for police personnel, because one who can successfully regulate his own emotions can maintain his own happiness and be away from the negative preoccupations. The mind set of human beings depends upon how they react to the traumatic incidents and events and regulate him.

STATEMENT OF THE PROBLEM

The kind of regulation strategy is very important as it contribute in many positive and negative mind sets among human beings. Hence the statement of the problem of the present study is

"Is there any role for cognitive emotion regulation strategies on developing PTSD among police employees".

DEFINITION OF VARIABLES

COGNITIVE EMOTION REGULATION

- **Conceptual definition**

  Cognitive emotion regulation refers to the conscious, cognitive way of handling the intake of emotionally arousing information (Garnefski, Kraaij, and Spinhoven, 2001:; Thompson, 1991).

- **Operational definition**

  Cognitive emotion regulation strategies are the kind of mental processes involved in the regulation of emotions among police officers while they witness emotionally arousing traumatic events.

POST TRAUMATIC STRESS DISORDER (PTSD)

- **Conceptual definition**

  Post-traumatic stress disorder (PTSD) is the disorder that develop after the patient have been exposed to a stressful event or situation (either brief of long lasting) or exceptionally threatening or catastrophic nature, which would be likely to cause pervasive distress in almost anyone. (ICD-10, 1992)

- **Operational definition**

  Post-traumatic stress disorder is psychological adversity experienced by the police officers as they witness shocking events during their duty.

OBJECTIVE

- To understand the relation between cognitive emotion regulation strategy and post- traumatic stress disorder in police personnel.

HYPOTHESIS

- There will be a significant relation between cognitive emotion regulation strategy and PTSD in police personnel.

Police personnel are highly likely to experience traumatic stressful experiences in their daily working hours. Some are likely to experience hostage situations but it differs in how they handle the situation and adverse emotions experienced. But not all develop depressive symptoms and/or post-traumatic stress disorder. Because the influence of cognitive emotion regulation strategies related to their experienced traumatic events. The present study intends to identify the significant difference in cognitive emotion regulation strategy used by police personnel and to understand whether there is any significant relationship between cognitive emotion regulation strategy and PTSD.

CHAPTER 2

REVIEW OF LITERATURE

The present chapter provides a review of theoretical and past research based evidences regarding relation between cognitive emotion regulation strategies and Post traumatic stress disorder (PTSD). It is organized into two sections; theoretical review and review of related literature for clarity and ease in accessing the information.

2.1 THEORITICAL REVIEW

This section deals with the theoretical basis of the variables presented in this study; cognitive emotion regulation strategies & post-traumatic stress disorder.

Theories of Emotion

Emotion is often defined as a complex state of feeling that results in physical and psychological changes that influence thought and behaviour. Emotionality is associated with a range of psychological phenomena, including temperament, personality, mood and motivation. According to author David G. Myers, human emotion involves physiological arousal, expressive behaviour, and conscious experience.

The major theories of emotion can be grouped into three main categories: physiological, neurological, and cognitive.

1. **Physiological theories** suggest that responses within the body are responsible for emotion
2. **Neurological theories** propose that activity within the brain leads to emotional responses
3. **Cognitive theories** argue that thoughts and other mental activity play an essential role in forming emotions

- **Evolutionary theory of Emotion**

According to Charles Darwin (1870), proposed the evolutionary theory of emotions in which he explained the feelings of love and affection lead people to seek mates and reproduce. Feelings of fear compel people to either fight or flee the source of danger.

According to the evolutionary theory of emotion (1870), our emotions exist because they serve an adaptive role. Emotions motivate people to respond quickly to stimuli in the environment, which helps improve the chances of success and survival. Understanding the emotions of other people and animals also plays a crucial role in safety and survival. Darwin believed that facial expressions of emotion re innate (hard-wired). He point out that facial expression allows people to quickly judge someone‟s hostility or friendliness and to communicate intentions to others. Evolutionary theorist believe that all human cultures share several primary emotions, including happiness, contempt, surprise, disgust, anger, fear, and sadness. They believe that all other emotions results from blends primary emotions.

- **James – Lange theory of emotion**

The James-Lange theory (1880) is one of the earlier theories in emotion. Independently proposed by psychologist William James and physiologist Carl Lange, the James-Lange theory of emotion (1880) suggests that emotions occur as a result of physiological reactions to events. This theory suggests that when you see an external stimulus that leads to a physiological reaction your emotional reaction is dependent upon how you interpret those physical reactions. William James and Carl Lange independently proposed an idea that challenged common-sense belief about emotion. This idea, which came to be known as the James- Lange theory, is that people experience emotion because they perceive their bodies physiological responses to external events. According to this theory people don‟t cry because they feel sad. Rather, people feel sad because they smile. This theory suggest that different physiological states correspond to different experiences of emotions

- **The Cannon – Bard theory of emotion**

Walter Cannon proposed his own theory of emotion in the (1920), which was extended by another physiologist, Philip Bard, in the 1930s. Walter Cannon disagreed with the James-Lange theory of emotion on several different grounds. First, he suggested, people can experience physiological reactions linked to emotions without actually feeling those emotions. Cannon also suggested that emotional responses occur much too quickly for them to be simply products of physical states. When you encounter a danger in the environment, you will often feel afraid before you start to experience the physical symptoms associated with fear such as shaking hands, rapid breathing, and a racing heart. According to the Cannon-Bard theory of emotion, we feel emotions and experience physiological reactions such as sweating, trembling, and muscle tension simultaneously.

- **Schachter – Singer theory of emotion**

Also known as the two-factor theory of emotion, the Schachter-Singer Theory (1960) is a theory of emotion based on a cognitive framework. This theory suggests that the physiological arousal occurs first, and then the individual must identify the reason for this arousal to experience and label it as an emotion. A stimulus leads to a physiological response that is then cognitively interpreted and labelled which results in an emotion. Schachter and Singer‟s theory (1960) draws on both the James-Lange theory and the Cannon-Bard theory of emotion. Like the James-Lange theory, the Schachter-Singer theory (1960) proposes that people do infer emotions based on physiological responses. The critical factor is the situation and the cognitive interpretation that people use to label that emotion. For example if a person finds herself near an angry mob of people when she is physiologically aroused. She might label that arousal “anger”. On the other hand, if she experiences the same pattern of physiological arousal at a music concert, she might label the arousal “excitement”. Schachter and Singer agree with the James – Lange theory that people infer emotions when they experience physiological arousal. But they also agree with the Cannon- Bard theory that the same pattern of physiological arousal can give rise to different emotions.

- **Cognitive appraisal theory**

According to appraisal theories of emotion (1991), thinking must occur first before experiencing emotion. Richard Lazarus (1991) was a pioneer in this theoretical approach towards emotion, and this theory is often referred to as the Lazarus theory of emotion. According to this theory (1991), the sequence of events first involves a stimulus, followed by thought which then leads to the simultaneous experience of a physiological response and the emotion. For example, if you encounter a bear in the woods, you might immediately begin to think that you are in great danger. This then leads to the emotional experience of fear and the physical reactions associated with the fight-or-flight response. According to Lazaru‟s cognitive meditational theory, upon encountering a stressor, a person judges its potential threat (via

primary appraisal-which seeks to establish the significance or meaning of an event) and then determines if effective options are available to manage the situation (via secondary appraisal-which assess the ability of the individual to cope with the consequences of the event). Stress is likely to result if a stressor is perceived as threatening and few or no effective coping options are available.

- **Facial feedback theory of emotion**

The facial feedback theory asserts that facial expressions are capable our emotions. According to the facial feedback hypothesis, facial expressions are not simply caused by emotions they can influence our emotions as well. Smiling more frequently over a period of time can, in fact, make you feel happier. (Buck, 1980; Soussignan, 2001; Strack, Martin, &Stepper, 1988). Research investigating the facial feedback theory has found that suppressing facial expressions of emotion may decrease how intensely those emotions are experienced. Scientists have been interested in the idea of a facial feedback hypothesis since the 1800s at least. In the 1840s, William James presented the idea that awareness of your bodily experiences is the basis of emotion. Human have six basic emotions. Those are happiness, surprise, disgust, sadness, anger, fear.

Theories of cognition

- **Piaget's cognitive developmental theory**

Piaget‟s theory (1936) states that children go through four stages of cognitive development as they actively construct their understanding of the world. Two processes underlie this cognitive construction of the world; organization and adaptation. To make sense of our world, we organize our experiences.in addition to organizing our observation and experiences, we adapt, adjust, to new environmental demands (Saul McLeod, 2018).

Piaget (1936) also held that we go through four stages in understanding the world. Each stage is aged related and consists of a distinct way of thinking, a different way of understanding the world. Thus, according to Piaget, the child‟s cognition is qualitatively different in one stage compared with another. The four stages of cognitive development are; sensory motor stage, preoperational stage, concrete operational stage, formal operational stage (Y. Dunham & K.R.Olson, 2008).

- **Vygotsky's sociocultural cognitive theory**

The Russian developmentalist Lev Vygotsky (1896-1934) argued that children actively construct their knowledge. However, Vygotsky (1962) gave social interaction and cultural far more important roles in cognitive development that Piaget did. Vygotsky theory is a sociocultural cognitive theory that emphasizes how culture and social interaction guide cognitive development. Vygotsky portrayed the child‟s development ias inseparable from social and cultural activities. He maintained that cognitive development involves learning to use; the interventions of society; such as language, mathematical system and memory strategies. Thus in one culture children might learn to count with the help of a computer. According to Vygotsy (1962), children‟s social interaction with more skilled adults and peers is indispensable to their cognitive development. Through this interaction, they learn to use the tools that will help them adapt and be successful in their culture (Robert A. Baron, Nyla R. Branscombe & Don Byrne, 2014).

- **Bandura's social cognitive theory**

Social cognitive theory (1977) holds that behaviour, environment, and cognition are the key factors in development. American psychologist Albert Bandura (1977) emphasizes that cognitive processes have important links with the environment and behaviour. Bandura‟s most recent model of learning and development includes three elements: behaviour, the person/cognition, and the environment. An individual confidence that he or she can control his or her success is an example of a person factor;

strategies are an example of a cognitive factor.

Posttraumatic stress disorder (PTSD) is a psychiatric syndrome that develops after exposure to terrifying and life threatening events including warfare, motor-vehicle accidents, and physical and sexual assault. The emotional experience of psychological trauma can have long term cognitive effects. The hall mark symptoms of PTSD involve alterations to cognitive process such as memory, attention, planning, and problem solving, underscoring the detrimental impact that negative emotionality has on cognitive functioning (Jasmeet P. Hayes et al. 2012). Influential cognitive theories of PTSD emphasize the interaction between emotion and cognition in contributing to the symptoms of PTSD. These theories contend that psychopathology arises when emotional stress alters cognitive networks that process information about perception, meaning, and action response towards executing goals (Lang, 1977; Foa and Kozak, 1986; Chemtob et al., 1986).

Cognitive emotion regulation (CER) strategies are described as the conscious, mental strategies individuals use to cope with the intake of emotionally arousing information (Garnefski N., Koopman H., Kraaij V, 2009).

Psychological theories on PTSD

- **Fear conditioning theories**

Fear conditioning theories holds the notion that a traumatic event is stored in a way that hinders the person‟s recovery from the trauma and from PTSD (Kristen Burke, 2015) This can, for instance, be apparent in recollections of the trauma that keep the person from maintaining his or her daily routines and vivid nightmares from which the person awakens, reducing the individually necessary amount of sleep the person needs (science direct, 2007). In the elementary version of these theories, two processes were hypothesized in the process that led to PTSD symptoms after having experienced a traumatic event. Mowrer‟s two-factor theory (1960) assumes that these processes play a role in all anxiety disorders, and this theory has been further elaborated for PTSD by Keane and colleagues (1985). A classical conditioning process is hypothesized to be crucial in the *development* of PTSD (Kristen Burke, 2015). This classical conditioning process holds that previously neutral stimuli present at the time of the traumatic event (conditioned stimuli, such as the tunnel where an accident happened) become fear-laden through their coupling with the trauma, for instance, the accident itself (termed the unconditioned stimulus). An operant conditioning process is proposed to be responsible for the *maintenance* of the PTSD symptoms in the longer run (Jens Blechert et al., 2007). This operant conditioning process would involve people avoiding thinking about or being reminded of the traumatic event, because this memory is painful and evokes anxiety and tension. Avoiding the fear-conditioned stimuli or thinking of the incident itself in one‟s mind would be reinforced by a short-term decrease of fear or even the absence of fear and tension. However, such avoidance would make the person even more anxious and tense to think of the traumatic event in the future and thus reinforce the fear responses in the long run (Heatherton, Todd, and Diane Halpern, 2013).

Lang‟s theory (1979, 1985) assumes that frightening events are stored in a broader cognitive framework and that they are represented within memory as interconnections between nodes in an associative network. These networks function as a kind of prototypes for recognizing and coping with meaningful situations (Fraser N. Watts & Andew J. Blackstock, 2008). Three types of information were proposed: stimulus information about the trauma, such as sights and sounds, information about the emotional and physiological response to the event, and meaning information (most importantly about the degree of threat) (Fraser N. Watts & Andew J. Blackstock, 2008). These nodes are interconnected, so if the person encounters one sort of information belonging to the traumatic event, the other modes of information would be activated automatically. As soon as sufficient elements of the network are activated, the whole

network of fear is activated together with the subjective experience and the corresponding behaviours. Lang proposes that fearful memories are easily activated by ambiguous stimuli, which are in some respect similar to the content of the original anxiety-provoking memory (Lang, 1977, Lang, 1979). PTSD may then be explained as a permanent activation of the fear network because of the very tight connections in this kind of fear network and the very strong emotional and physiological responses. Knowledge about the traumatic experience can change by strengthening associations between a certain emotional network and other incompatible networks (Lang, 1977, Lang, 1979).

Foa‟s emotional processing theory (1989, 1998) draws on these principles but emphasizes that the representation of traumatic events in memory is different from that of „normal‟ events. An assumption made by this theory is that traumatic events violate the basic concepts of safety that people hold. A central concept in this theory is the *fear network*, the cognitive representation of fear that includes both emotional reactions and current beliefs about threats in the environment (Foa, Edna B. et al., 2006).

- **Dual representation theory**

According to Berwin et al. (1996, 2010, 2008) Dual representation theory of PTSD assumes that there are two kinds of memory representations that play a role in PTSD. In this model, the flashbacks experienced by PTSD patients are assumed to be the consequence of the enhanced encoding of certain aspects of the traumatic event called sensation-near representations (S-reps) (Chris R. Brewin et al., 1996). In earlier versions of the theory, these were called situationally accessible memory (SAM) to emphasize that these aspects can automatically be activated by triggers that the person encounters (Judy S. DeLoache, 1995).

This explains why a PTSD patient with flashbacks of being stabbed with a knife feels as if the trauma is occurring in the present, because the memory is primarily sensory and lacks a spatial and temporal context (Judy S. DeLoache, 1995). This memory representation contains information that has not yet been processed by higher cognitive functions, but consists of information coming from lower perceptual processes and the direct autonomic and sensorimotor responses of the person (C R Berwin et al., 1996). They are assumed to be processed in parts of the brain that are specialized for action in the environment, specifically the dorsal visual stream, insula, and amygdala (C R Berwin et al., 1996). The information is closely and directly connected to the traumatic event itself and with the strong emotional reactions of the person when it happened (C R Berwin et al., 1996).

Cognitive theories on PTSD

Some emotional responses of trauma survivors depend on cognitive appraisal. Cognitive factors, such as expectancies and the individual‟s amount of control over the situation, have been elaborated by Ehlers and Clark (2000) in their model of PTSD. They propose that experiencing extreme stress, which depends on the person‟s appraisal of the threat, is an essential factor in the occurrence of acute stress reactions, which display emotional, behavioural, and biological effects (Mirjam J. Nijdam & Lutz 2015). Failure to effectively regulate this acute reaction may result in an on-going dysregulation, which may ultimately lead to posttraumatic stress symptoms (Mirjam J. Nijdam & Lutz 2015). Ehlers and Clark (2000) describe that pathological responses to traumatic events occur when the trauma survivor processes the trauma in a way that produces a sense of current threat (Mirjam J. Nijdam & Lutz 2015). This sense of current threat can be outward-focused to an external source of threat or inward-focused as an internal threat to the self and the future. Negative appraisals about danger, violations of boundaries, and loss are thought to be responsible for the range of emotions experienced by trauma survivors with PTSD (Springer International Publishing)

'Hotspots' in trauma narrative

Ehlers and Clark (2000) developed cognitive therapy for PTSD, which is a highly effective treatment (Bradley et al. 2005). In this therapy, negative appraisals and cognitions are investigated and replaced by appraisals and cognitions that are more adaptive. Ehlers and colleagues (2000) also continued to study intrusive memories and found that these mainly represented stimuli that were present shortly before the moments of the trauma with the greatest emotional impact (Ehlers et al.2002). They called these stimuli „warning signals", because they alert the person to danger if encountered again (Mirjam J. Nijdam & Lutz 2015). These stimuli are logically connected with a sense of current threat and are often re-experienced. Ehlers and colleagues (2004) developed a therapeutic strategy in which the intrusions lead the therapist to the moments with the greatest emotional impact, also called „hotspots". In trauma-focused cognitive behavioural therapy, they assume that it is essential to focus on hotspots and change their meaning, in order to lead to a decrease in PTSD symptoms. (Nijdam, M. J & Wittmann, L; 2015)

2.2 Review of related studies

A literature review is an evaluative report of information found in the literature related to your selected area of study. The review should describe, summarize, evaluate and clarify this literature. It should give a theoretical base for the research and help you (the author) determine the nature of your research. Works which are peripheral should be looked at critically.

A literature review is more than the search for information, and goes beyond being a descriptive annotated bibliography. All works included in the review must be read, evaluated and analysed. Relationship between the literatures must also be identified and articulated, in relation to your field of research.

Many educated people have discussed possible functions of cognitive emotion regulation strategies and PTSD only from a theoretical point of view. In this chapter discussed the studies related to the present study variable. Reviews of related studies are including in three main headings. Those are (1) studies related to emotion regulation and coping in police officers (2) studies related to cognitive emotion regulation strategies (3) studies related to post traumatic stress disorder.

Studies related to emotion regulation and coping in police officers

Police work involves stressful demands such as dealing with human misery, abused children, and instantaneous life or death decisions. Additionally, the burden of societal responsibility and strict legal norms are placed on officers as they deal with these demands. Source of stress in policing may be classified into two general categories (Shane, 2010): those arising from
(1) job content which include work schedules, shift work, long work hours, overtime and court work, and traumatic events and threats to physical and psychological health; and those arising from (2) job context also called organizational stressors, which refers to characteristics of the organizational and behaviour of the people that produce stress (McCanlies et al., 2014). In this session was discussed about the studies related to the police person.

A study conducted by Matthias Berking (2010) on "Enhancing Emotion-Regulation Skills in Police Officers: Results of a Pilot Controlled Study "that showed ,police officers are routinely exposed to situations that elicit intense negative emotions; thus, officers have a particularly strong need for effective methods of regulating such emotions (Matthias Berking, 2010). The main purpose of this study was to investigate whether manualized emotion-regulation training can improve the emotion-regulation skills of police officers. The sample of officers was 31. Results indicate that, compared to controls, officers have

difficulties in accepting and tolerating negative emotions, supporting themselves in distressing situations, and confronting emotionally challenging situations (Matthias Berking, 2010). The training significantly enhanced successful skill application, especially some skills with which officers reported difficulty applying. These findings suggest that a focus on emotion-regulation skills may be an important component for programs aimed at preventing mental-health problems in police officers (Science Direct).

A study conducted by Serpil Aytac (2015) on "The Sources of Stress, the Symptoms of Stress and Anger Styles as a Psychosocial Risk at Occupational Health and Safety: a Case Study on Turkish Police Officers" the study aimed at measuring the sources of stress, the symptoms of stress and anger styles of police officers as psychosocial risk factors (Serpil Aytac, 2015). A survey was carried out on 5725 randomly selected police officers in a big city in Turkey. The questionnaire included some personal information. When collecting data, Mayerson‟s stress factor scale was used to measure the sources of stress. The psychological symptom checklist-SCL-90-r was used to measure the participants‟ psychological symptoms and the State Trait Anger Scale is used to measure anger styles of police officers. The findings of the present study have shown that there are meaningful relationships among the symptoms of stress, the sources of stress and anger (Serpil Aytac, 2015). According to this pointing system, it has been found that the police officers got higher stress points from the Mayerson Stress Sources Scale when physical environment, job, social stress and self-expression are considered, and they were tended to have increased problems (Serpil Aytac, 2015). Psychological symptoms are highly prevalent among Turkish police officers (Science Direct)

A study conducted by Andree Ann Deschenes et al., (2018) on "Psychosocial Factors Linked to the Occupational Psychological Health of Police Officers: Preliminary Study" .The police environment is considered to be in a category of jobs with a high level of stress. More and more police officers are at work for stress-related psychological health problems. It is possible that the work functions associated with this professional field make police officers vulnerable to the psychological health problems (Andree-ANN Deschenes, Christine Desjardins & Marc Dussault, 2018). A sample of 12 police officers was interviewed during the winter of 2016 for this qualitative study. The officers participated voluntarily in a semi-directed interview conducted using a predefined interview guide. The purpose of this study was to determine the predictive factors associated with psychological health in the police officers‟ workplaces (Andree-ANN Deschenes, Christine Desjardins & Marc Dussault, 2018). An inductive analysis of all the statements collected was conducted and the results were divided into three factors: socioeconomic (budget cuts and social pressure), organizational (police culture, managerial instability, leadership, recognition and interpersonal support) and personal (self-employed, efficiency, emotional abilities and disillusionment) (Andree-ANN Deschenes, Christine Desjardins & Marc Dussault, 2018). This study can serve as a premise for police organizations to question their influence on the psychological health of police officers. This qualitative study aims to initiate innovative reflection in a sector where the development of knowledge is currently insufficient. (Cogent Psychology).

A study conducted by Ravaneet Kaur, Narasimha k Reddy and Vamsi k Chodagiri (2013) on a "Psychological Study of Stress, Personality and Coping in Police Personnel". There have been few studies focusing on occupational/organizational causes of stress in police. This cross-sectional study was conducted among the constables and head constables working in the police department, Vizianagram town, Andhra Pradesh. The study sample consisted of
150 police persons. The socio-demographic data was individually collected from them. General health questionnaire-28 (GHQ-28; 1991) was used for assessing psychological stress, Eysenck's personality questionnaire (EPQ; 1962) for personality traits, and coping checklist-1 (CCL-1; 1988) for eliciting coping methods. The result showed that GHQ-28, 35.33% of the police were found to be having psychological distress. The socio-demographic variables showed no significant association to psychological stress (Indian journal of psychological medicine, 2013). Personality traits such as

neuroticism, psychoticism, and extroversion and coping methods like negative distraction and denial/blame showed statistically significant association with psychological stress (Indian journal of psychological medicine, 2013). As measured by Pearson‟s correlation coefficient (r), there was evidence of linear association between certain personality traits and coping methods as well. The personality traits and coping methods have significant independent and interactive role in the development of high psychological stress in police persons, thus placing them at a high risk of developing psychiatric disorders .(Indian journal of psychological medicine, 2013).

There are many studies related to the police person. In this session only include a few studies related to police officers. These review literature was helps to understand more about the issues affected by the police person.

Studies related to cognitive emotion regulation strategies

Cognitive emotion regulation strategies are described as the conscious, mental strategies individuals use to cope with the intake of emotionally arousing information (Garnefski N., Koopman H., Kraaij V., 2009). This session was deals with the review literature of cognitive emotion regulation strategies.

A study conducted by Ewa Domaradzka and Malgorzata Fajkowska (2018) “Cognitive Emotion Regulation Strategies in Anxiety and depression understood as types of personality”. On the identification of distinctive and overlapping features of anxiety and depression remains an important scientific problem. The aim of this study was to identify the overlapping and distinctive patterns of CERS use in the recently proposed types of anxiety and depression in a general population (Ewa Domaradzka and Malgorzata Fajkowska, 2018). A representative sample of 1,632 participants from a population completed the anxiety and depression questionnaire (measuring the arousal and apprehension types of anxiety and the valence and anhedonic types of depression) and the cognitive emotion regulation questionnaire. Regression analyses were conducted with the affective types as predictors. The result showed that reactive arousal anxiety was not related to any strategies, while regulative apprehension anxiety primarily predicted the use of rumination, which is presumably related to the type's cognitive structural components (Ewa Domaradzka and Malgorzata Fajkowska, 2018). The strategy specific to reactive valence depression was other-blame (as predicted by the high negative affect in its structure), and the regulative, most structurally complex anhedonic depression predicted the use of the largest number of strategies, including the adaptive ones (Ewa Domaradzka and Malgorzata Fajkowska, 2018). The relationships between the types of depression and self-blame and refocus on planning were moderated by sex but the effects were small. (Ewa Domaradzka and Malgorzata Fajkowska, 2018).

A study conducted by Andreea Mihaela Mihalca and Yuliya Tarnavska (2013) on “Cognitive Emotion Regulation Strategies and Social Functioning in Adolescents”. The aim of this study was to explore the relationship between cognitive emotion regulation strategies and social functioning in adolescents. The sample of Adolescents taken was 378 aged between 11 and 16 years filled in the self-report scales assessing cognitive emotion regulation strategies, social functioning and associated distress (Andreea Mihaela Mihalca and Yuliya Tarnavska 2013). The regression analysis revealed that catastrophizing and acceptance significantly predicted social functioning problems, while catastrophizing, planning and self-blame predicted associated distress. (SciVerse ScienceDirect, 2013).

A study conducted by Nadia Garnefski and Vivian Kraaij (2007) on “The Cognitive Emotion Regulation Questionnaire -Psychometric Features and Prospective Relationships with Depression and Anxiety in Adults”. The psychometric properties of the cognitive emotion regulation questionnaire (CERQ; 1999) as well as its prospective relationships with symptoms of depression and anxiety were studied in an adult general population sample. The result showed that cognitive emotion regulation strategies accounted for

considerable amounts of variance in emotional problems and strong relationships were found between the cognitive strategies self-blame, rumination, catastrophizing and positive reappraisal (APA PsycNet, 2013).

A study conducted by Lahcen Bandadi, Nadia Chamkal, Siham Belbachir and Ahmed O. T. Ahami (2019) on "The use of the Adaptive and the Maladaptive Cognitive Emotion Regulation Strategies by Nursing Students in Morocco Facing to the Patient Death in a Clinical Setting". The purpose of this study is to describe the adaptive and the maladaptive cognitive emotion regulation strategies used by nursing student having experienced the death of a patient in a clinical setting. The study was conducted in the Institute of Nursing and Technical Health of Rabat in Morocco. The sample of this study, 64 nursing students from license cycle have recruited (56, 2% female, 43, 8% male). 37, 5% nurses student are from semester two and 62, 5% are from the final semester (S6). The tool used to conduct this study is the Cognitive Emotion Regulation Strategies Questionnaire (CERSQ; 1999). The result showed that for all group, the students used less adaptive cognitive regulation strategies (Lahcen Bandadi, Nadia Chamkal, Siham Belbachir and Ahmed O. T. Ahami 2019). There was significant difference between males and females in terms of catastrophizing, self-blame, rumination with high scores among females (Lahcen Bandadi, Nadia Chamkal, Siham Belbachir and Ahmed O. T. Ahami 2019). Compared to the nursing student from the semester two, the nursing student from the final semester had low self-blame, low catastrophizing, low rumination, and high positive refocusing (Lahcen Bandadi, Nadia Chamkal, Siham Belbachir and Ahmed O. T. Ahami 2019). The study shows that, facing death of patient, nursing students underutilized the adaptive cognitive emotion regulation strategies. The use of the maladaptive cognitive emotion regulation strategies is in the norms (Lahcen Bandadi, Nadia Chamkal, Siham Belbachir and Ahmed O. T. Ahami 2019). However, significant differences related to the gender and to the semester level were observed (Lahcen Bandadi, Nadia Chamkal, Siham Belbachir and Ahmed O. T. Ahami 2019).. These results show the great interest of intervention to promote the cognitive emotion regulation strategies while taking into account the gender approach. (Biomedical and Pharmacological Journal 2019).

The studies related to the cognitive emotion regulation strategies session mentioned above review literature. This session was helps to aware about the cognitive emotion regulation strategy and how its work in a certain population. Cognitive and emotional processes are the two important parts in a function of a human being.

Studies related to Post Traumatic Stress Disorder

Post-traumatic stress disorder (PTSD) is a psychiatric disorder that can occur in people who have experienced or witnessed a traumatic event such as a natural disaster, a serious accident, a terrorist act, war or combat, rape or other violent personal assault. In this session was deals with the studies related to PTSD. Many researchers are research the impact and effects of PTSD in different population. In below discussed the review literature related to the PTSD.

A study conducted by David Berle, Dominic Hilbrink, Clare Russell-Williams, Rachael Kiely, Laura Hardaker, Natasha Garwood, Anne Gilchrist & Zachary Steel (2018) on "Personal Wellbeing in Posttraumatic Stress Disorder (PTSD): Association with PTSD Symptoms During and Following Treatment". The sample of this study was 124. They completed the PTSD Checklist (2015), the Depression and Anxiety Stress Scales (DASS; 2014) and the Personal Wellbeing Index (PWI; 2013) at the start and end of a 4-week Trauma Focused CBT residential program, as well as 3- and 9-months post-treatment. The result showed that Personal wellbeing improved significantly across the 9-months of the study (David Berle et al., 2018). Generalised estimating equations analyses indicated that (older) age and improvements in PTSD and depressive symptoms were independent predictors of personal wellbeing across time (David Berle et al., 2018). Although personal wellbeing improved in tandem with PTSD

symptoms, the magnitude of improvement was small. These findings highlight a need to better understand how improvements in personal wellbeing can be optimised following PTSD treatment. (NCBI, 2018)

A study conducted by Tara A. Hartley, Khachatur Sarkisian, John M. Violanti, Michael E. Andrew, and Cecil M. Burchfiel (2016) on "PTSD Symptoms Among Police Officers: Associations With Frequency, Recency, And Types Of Traumatic Events" and that showed Policing necessitates exposure to traumatic, violent and horrific events, which can lead to an increased risk for developing post-traumatic stress disorder (PTSD). The purpose of this study was to determine whether the frequency, recent, and type of police-specific traumatic events were associated with PTSD symptoms (Tara A. Hartley et al., 2018). The sample size was 359 police officers from the Buffalo Cardio-Metabolic Occupational Police Stress (BCOPS; 2006). Traumatic police events were measured using the Police Incident Survey (PIS; 2000); PTSD was measured using the PTSD Checklist-Civilian Version (PCL-C; 2003). The result showed that increased frequency of specific types of events were associated with an increase in the PCL-C score in women, particularly women with no history of prior trauma and those who reported having a high workload (Tara A. Hartley et al., 2018). More recent exposure to seeing severely assaulted victims was associated with higher PCL-C scores in men. The frequency of several traumatic events was associated with higher PTSD scores in women, while the recency of seeing victims of assault was associated with higher PTSD scores in men. (International journal of emergency mental health)

A study conducted by André Marchand, Céline Nadeau, Dominic Beaulieu-Prévost, Richard Boyer (2015) on "Predictors of Posttraumatic Stress Disorder Among Police Officers: A Prospective Study". The prospective study examined risk and protective factors in the development of posttraumatic stress disorder (PTSD) in a sample of 83 police officers. Structured interviews were conducted in order to assess the most recent work-related traumatic event and establish diagnoses of acute stress disorder (ASD) and full or partial PTSD (Andre Marchand et al., 2015). Police officers were assessed between 5 and 15 days, and at 1 month, 3 months, and 12 months after the event. The results showed that the modulation of PTSD symptomatology was associated with some pre-traumatic (i.e., emotional coping strategies and number of children), traumatic (i.e., physical and emotional reactions and dissociation), and posttraumatic factors (i.e., ASD, depression symptoms, and seeking psychological help at the employee assistance program and at the police union between the event and time). (Andre Marchand et al., 2015)

A study conducted by June-Hee Lee, Inah Kim, Jong-Uk Won and Jaehoon Roh (2016) on "Post-traumatic stress disorder and occupational characteristics of police officers in Republic of Korea: a cross-sectional study". South Korean police officers have a greater workload compared to their counterparts in advanced countries. This study aimed to evaluate the police officer's job characteristics and risk of post-traumatic stress disorder (PTSD) among South Korean police officers (June-Hee Lee et al., 2016). The Participants were 3817 police officers with a traumatic event over a 1-year period. The results shown that among the respondents, 41.11% were classified as having a high risk of PTSD (June-Hee Lee et al., 2016). From the perspective of the rank, Inspector group (46.0%) and Assistant Inspector group (42.7%) show the highest frequencies of PTSD (June-Hee Lee et al., 2016). From the perspective of their working division, Intelligence and National Security Division (43.6%) show the highest frequency, followed by the Police Precinct (43.5%) and the Traffic Affairs Management Department (43.3%) (June-Hee Lee et al., 2016). It is shown that working in different departments was associated with the prevalence of PTSD ($p=0.004$) (June-Hee Lee et al., 2016). The high-risk classification was observed in 41.11% of all officers who had experienced traumatic events, and this frequency is greater than that for other specialised occupations (eg, fire fighters) (June-Hee Lee et al., 2016). Therefore, the researchrs concluded that groups with an elevated proportion of high-risk respondents should be a priority for PTSD treatment, which may help increase its therapeutic effect and improve the awareness of PTSD among South Korean police officers June-Hee Lee et al., 2016 (). South Korean police officers have a greater workload compared to their counterparts in advanced countries. (BMJ Journal, 2016)

A study conducted by Christine Stephens, Nigel Long, and Ian Miller on "The impact of trauma and social support on Posttraumatic Stress Disorder: A study of New Zealand police officers" Police work often involves traumatic situations and efforts toward the prevention of Posttraumatic Stress Disorder (PTSD) focus on post trauma variables. The sample of 527 officers of the New Zealand Police responded to a questionnaire. The result showed that lower social support would be related to higher PTSD scores was supported for social support from peers, supervisors, and outside work, but not for negatively expressed support. These aspects of support would interact with traumatic experiences was supported for attitudes to expressing emotion at work. (Journal of Criminal Justice,).

A study conducted by Jong-Ku Lee, Hyeon-Gyeong Choi, Jae-Yeop Kim, Juhyun Nam, Hee-Tae Kang, Sang-Baek Koh, Sung-Soo (2016) Oh on "Self-resilience as a protective factor against development of post-traumatic stress disorder symptoms in police officers" This study was conducted to check whether self-resilience, one of the characteristics known to affect the occurrence of post-traumatic stress disorder (PTSD) symptoms after experiencing traumatic events, could serve as a protective factor for police officers whose occupational factors are corrected. This study conducted the number of sample of 112 male police officers in Gangwon Province participated. The result showed that among 112 respondents who experienced a traumatic event, those with low self-resilience had significantly higher rate of PTSD symptoms than those with high self-resilience even after correcting for the covariate of general, occupational, and psychological characteristics. Despite several limitations, these results suggest that a high degree of self-resilience may protect police officers from critical incident-related PTSD symptoms. (Springer Nature December 2016).

A study conducted by Anne Gärtner1, Alexander Behnke, Daniela Conrad, Iris-Tatjana Kolassa and Roberto Rojas (2019) on "Emotion Regulation in Rescue Workers: Differential Relationship With Perceived Work-Related Stress and Stress-Related Symptoms" Rescue workers are exposed to enduring emotional distress, as they are confronted with (potentially) traumatic mission events and chronic work-related stress. Thus, regulating negative emotions seems to be crucial to withstand the work-related strain. This cross-sectional study investigated the influence of six emotion regulation strategies (i.e., rumination, suppression, avoidance, reappraisal, acceptance, and problem solving) on perceived work-related stress and stress-related depressive, post-traumatic, and somatic symptoms in a representative sample of 102 German rescue workers. The result showed that multiple regression analyses identified rumination and suppression to be associated with more work-related stress and stress-related symptoms. Acceptance was linked to fewer symptoms and, rather unexpectedly, avoidance was linked to less work-related stress. No effects were observed for reappraisal and problem solving. The study findings confirm the dysfunctional role of rumination and suppression for the mental and physical health of high-risk populations and advance the debate on the context-specific efficacy of emotion regulation strategies. (Original research article Frontier in psychology, 2019).

In this session were deals with the review literature of post-traumatic stress disorder. There are many research was conducted by the PTSD. But in this session only choose the appropriate research only. These review literature was suitable to the present study.

In the second chapter discussed about the theories related to the variable in the study. The theories focused the emotion, PTSD, cognition. And this chapter also focused on the review literature of the present study variable and population. Those are studies related to police person, cognitive emotion regulation strategies and PTSD.

CHAPTER 3 METHODOLOGY

Method in social research covers the entire terrain of scientific research in social sciences. Any scientific research in social (or the natural) science involves a search into a problem area, with the ultimate intent of contributing to the corpus of scientific knowledge, which then becomes available to the world. Hence in every scientific study, methodology is an important aspects which should be given due consideration.

The methodology employed for the present investigation is consolidated under five headings viz. (1) research design (2) selection of sample (3) tools or instrument (4) procedure (5) analysis

3.1 Research design

According to Kerlinger research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to control variance. The research design is intended to provide an appropriate framework for a study. (Aaker A, Kumar V D, George s. 2000). The present research is used purposive sampling techniques. It is also known as judgement, selective or subjective sampling. It is a sampling technique in which researcher relies on his or her own judgement when choosing members of population to participate in the study (Business Research methodology).

Selection of Sample

A sample is a small group, which represents all the traits, and characteristics of the population under study.

Sampling can be done by using purposive sampling technique. A purposive sampling technique is a non-probability sample that is selected based on characteristics of a population and the objective of the study. It is also known as judgemental, selective or subjective sampling (Ashley Crossman, 2020).

The data was collected from 150 police men worked in Trivandrum district. The questionnaire method was used to collect data. Permission for data collection will be obtained from concerned police department and the researcher would personally administer the standardized questionnaire to the participants in the study.

The questionnaire given included a section for personal details and scale to assess cognitive emotion regulation strategies and PTSD symptoms of the participants. The cognitive emotion regulation questionnaire (CERQ) comprises of 36 statements and is a five point Likert scale, with responses ranging from almost never to almost always. The PTSD symptom scale comprises of 17 statements. The purpose of the assessment was explained to the participant and the scale was given to them only after willingness to participate. The instructions for completing the scale were given and clarifications, when required were also given. The participants could finish the scale at their own pace.

INCLUSION & EXCLUSION CRITERIA

Inclusion criteria

- Police men who have minimum 2 years of continuous
- Starting age 32 to ending age 56 years.

Exclusion criteria

- Police trainee were not taken
- Women police are excluded

3.3 VARIABLES

The present study aims to find the influence of cognitive emotion regulation strategies on PTSD among police person. In this study there is only one hypothesis. According to that hypothesis:

Independent variable:

Cognitive emotion regulation strategies

Dependent variable:

Post-traumatic stress disorder

Tools or instrument

Tools or materials are devices to manage the variables under study. There are different tools available, which suit different conditions hence adequate choosing of tools is an important part of any investigation. Here in the present study, the following tools which the investigator finds most suitable are used.

The tools used were:

- **Personal Data Sheet,**
- **Cognitive Emotion Regulation Questionnaire, and**
- **Post-Traumatic Stress Scale Interview Version for DSM-5(PSSL-5)**

Personal data sheet

The questions included in the inventory were mostly socio demographic data questions. The questionnaire also includes YES/NO type questions. Participant‟s name, age, educational qualification, marital status, years of experiences, nature of job, job title etc. are included in the personal data sheet.

Cognitive Emotion Regulation Questionnaire (CERQ)

Cognitive Emotion Regulation Questionnaire (CERQ) is developed by Garnefski N., Kraaji V., Spinhoven in 2002. Cognitive emotion regulation questionnaire (CERQ) is a multi-dimensional questionnaire constructed in order to identify the cognitive emotion regulation strategy or cognitive coping strategy someone uses after having experiences negative events of situations. The CERQ is very easy to administer, self-report questionnaire consisting 36 items. The questionnaire has been constructed both on a theoretical and empirical basis and measures 9 different cognitive coping strategies. The CERQ can been administered in normal populations and clinical populations, in different age group. The CERQ can be used to measure someone‟s general cognitive styles as well as someone cognitive strategy after having experienced a specific events. Separate versions for adults, adolescents and children as well as a short 18 item version have been developed. All these versions are available Dutch and English. The CERQ can be used for research and diagnostic purpose. (Garnefski, N., Kraaji, V. Spinhoven, 2002).

Reliability of the scale:

Cronbach‟s alpha ranging between .87

Validity of the scale:

Factorial validity .75

Post-Traumatic Stress disorder symptom Scale (PSS-I) interview

The PTSD symptom scale (PSS-I) interview was developed by Elizabeth A. Hembree, Edna B.Foa, & Norah C. Feeny. The PTSD symptom scale (PSS-I) first published in 1993, is a semi structured 17 item interview aiding in assessing the presence and severity of DSM -4 PTSD symptoms. The symptoms would be related to an identified traumatic event in an individual with a known trauma history. Items are rated on 0-3 scale for combined frequency and severity, yielding one score per item. A score of 0 corresponds to “not at all”; 1 corresponds to “once per week or less/ a little”; 3 corresponds to “2to 4 times per week/somewhat”; 3 corresponds to “5 or more times per week/very much”. Any trained individual can administer the scale and it takes 15 to 25 minutes to complete (depending upon the levels of psychopathology). Each item on the scale is assessed with brief questions, there are no follow up questions. It is copy right protected, and permission was obtained to use the scale for the present study. (Foa, E.B. & Capaldi,S. 2013). The PSS-I is scored by simply summing the individual items scores. To obtain the severity scores for each of the experiencing, avoidance, and hyper arousal clusters, sums the items within each cluster. To obtain total PTSD severity, sum all 17 items. (International society for traumatic stress studies, (ISTSS).

Reliability and validity:

The PSS-I has been validated for two different time intervals, those being the “past 2 weeks” and the “past month”. Inter-rater reliability for PTSD diagnosis (k=0.91) and overall severity (r=0.97) are both excellent. The time needed for assessing PTSD with the PSS-I scale is short without sacrificing reliability or validity

Procedure

Appropriate sample was identified from the police stations and consent was obtained. After that personal data sheet were given. It will be completed after provided the post-traumatic stress scale and cognitive emotion regulation questionnaire and provided some instruction related to the data collection and questionnaire. And all the questionnaires were collected and code the excel sheet for statistical analysis.

Statistical techniques used for the analysis

Any measures of sample value are called a statistic. Statistical techniques that were employed to test the hypothesis in the study are described in the following section. The main statistical technique used in the study is Pearson correlation coefficient. Correlational coefficients are used in statistics to measure how

strong a relationship is between two variables. There are several types of correlation coefficient, but the most popular is Pearson‟s. (Wilhelm Kirch, 2008)

Data will be collected and compiled by using MS Excel 2010 and analysed by SPSS 20.0 version. Quantitative data will be expressed in Pearson correlation analysis. Pearson‟s correlation coefficient is the test statistics that measures the statistical relationship, or association, between two continuous variables.

Purposive sampling technique was used in this study. 150 police men were selected for the study. The sample was collected from the Trivandrum district police stations. Cognitive Emotion Regulation Questionnaire (CERQ Garnefski, N., Kraaji, V. Spinhoven, 2002). And Post- Traumatic Stress disorder symptom Scale (PSS-I) Interview (Hembree, Edna B.Foa, & Norah C. Feeny, 1993) is the tools used for study.

CHAPTER 4 RESULT AND DISCUSSION

This chapter includes the analysis of data followed by a discussion of the research findings. Data were analyzed to identify, describe and explore the impact of cognitive emotion regulation strategies and PTSD among police person. The researcher selected a sample of 150 police person from police station in Trivandrum district. On this representative sample, psychological instruments were administered to assess cognitive emotion regulation strategies and PTSD. The results obtained were through statistical analysis and are presented in this present chapter. The discussions of the results are done on the basis of hypothesis.

The main focus of the present study is to analyze the impact of cognitive emotion regulation strategies and PTSD among police person. This study helps to understand, which cognitive and emotion strategies are used by a police person in different situations and how these strategies are associated with PTSD symptoms. Pearson‟s correlation analysis had been used for testing the research hypothesis and result and interpretation of the data is given below.

H1: There will be a significant relation between cognitive emotion regulation strategy and PTSD in police personnel.

Table 4.1: Result of correlation based on cognitive emotion regulation strategy and PTSD among police personnel.

Variables	Post-traumatic stress	Self-blame	Acceptance	Rumination	Positive refocus	Refocusing on planning	Positive reappraisal	Putting into perspective	Catastrophising	Blame for others
Post-traumatic stress	()	.102	-.156	-.164*	-.075	-.174*	-.058	.056	-.016	-.065

Self-blame	( )	()	.048	.043	.053	-.157	-.026	.023	-.010	-.020
Acceptance	( )	( )	()	-.070	-.021	.043	-.068	-.047	-.062	-.097
Rumination	-.164*	( )	( )	()	-.032	.035	.207*	.264**	-.039	-.007
Positive refocus	( )	( )	( )	.207*	()	-.020	.149	-.011	.069	.006
Refocusing on planning	-.174*	( )	( )	( )	( )	()	-.162*	.018	-.035	-.068
Positive reappraisal	( )	( )	( )	( )	( )	-.162*	()	.175*	.033	-.088

Putting into perspective	( )	( )	( )	.264**	( )	( )	.175*	()	-.055	.009
Catastrophising	( )	( )	( )	( )	( )	( )	( )	( )	()	-.073
Blame for others	( )	( )	( )	( )	( )	( )	( )	( )	( )	()

*** Correlation is significant at 0.05 level (2-tailed).**

**** Correlation is significant at 0.01 level (2-tailed).**

Table 4.1 shows the result of correlation based on cognitive emotion regulation strategies and PTSD among police person. The hypothesis states there will be a significant relationship between cognitive emotion regulation strategies and PTSD in police personnel. The CERQ is assessed the nine variables, and its relationships with the PTSD. The nine variables are self-blame, acceptance, rumination, positive refocus, refocus on planning, positive reappraisal, catastrophising, blame for others. Based on these variables and among these variables PTSD has significant weak negative correlation with rumination and refocus on planning variables. Hence CERQ has a weak negative relationship with PTSD and there is a possibility that there could be other associated factor that could determine the development of PTSD in police personnel.

There is a weak correlation between variable post-traumatic stress and variable self-blame (0.102). There is a weak negative correlation between variable post-traumatic stress and variable acceptance (-.156). There is a weak negative correlation between variable post-traumatic stress and variable rumination, which is significant at 0.05 levels (-.164). There is a negative correlation between variable post-traumatic stress and variable positive refocus (-
.075). There is a weak negative correlation between variable post-traumatic stress and refocusing on planning, which is significant at 0.05 levels (-.174). There is a weak negative correlation between variable post-traumatic stress and variable positive reappraisal (-.058). There is a weak correlation between variable post-traumatic stress and variable putting into perspective (0.056). There is a weak negative correlation between variable post-traumatic stress and variable catastrophising (-0.016). There is a weak negative correlation between variable post-traumatic stress and variable blame for others (-0.065).

There is weak correlation between variable self-blame and variable acceptance (0.048). There is a weak correlation between variable self-blame and variable rumination (0.043). There is weak correlation between variable self-blame and variable positive refocus (0.053). There is weak negative correlation between variable self-blame and variable refocus on planning (-0.157). There is a negative correlation between variable self-blame and variable positive reappraisal (-0.026). There is a weak correlation between variable self-blame and putting into perspective (0.023). There is a weak negative correlation between self-blame and variable catastrophising (-0.010). There is a weak negative correlation between self-blame and variable blame for

others (-0.020).

There is a weak negative correlation between variable acceptance and variable rumination (-0.070). There is a weak negative correlation between variable acceptance and variable positive refocus (-0.021). There is a weak correlation between variable acceptance and variable refocusing on planning (0.043). There is a weak negative correlation between variable acceptance and variable positive reappraisal (-0.068). There is a weak negative correlation between variable acceptance and variable putting into perspective (-0.047). There is a weak negative correlation between variable acceptance and variable catastrophising (-0.062). There is a weak negative correlation between variable acceptance and variable blame for others (-0.097).

There is a weak negative correlation between variable rumination and variable positive refocus (-0.032). There is a weak correlation between variable rumination and variable refocus on planning (0.035). There is a weak positive correlation between variable rumination and variable positive reappraisal, which is significant at 0.05 levels (0.207). There is a weak positive correlation between variable rumination and variable putting into perspective, which is significant at 0.01 levels (0.264). There is a weak negative correlation between variable rumination and variable catastrophising (-0.039). There is a weak negative correlation between variable rumination and variable blame for others (-0.007).

There is a weak negative correlation between variable positive refocus and variable refocus on planning (-0.020). There is a weak correlation between variable positive refocus and variable positive reappraisal (0.149). There is a weak negative correlation between variable positive refocus and variable putting into perspective (-0.011). There is a weak correlation between variable positive refocus and variable catastrophising (0.069). There is a weak correlation between variable positive refocus and variable blame for other (0.006).

There is a weak negative correlation between variable refocus on planning and variable positive reappraisal, which is significant at 0.05 level (-0.162). There is a weak correlation between variable refocus on planning and variable putting into perspective (0.018). There is a weak negative correlation between variable refocus in planning and variable catastrophising (-0.035). There is a weak negative correlation between variable refocus on planning and variable blame for others (-0.068).

There is a weak positive correlation between variable positive reappraisal and variable putting into perspective, which is significant at 0.05 level (0.175). There is a weak correlation between variable positive reappraisal and variable catastrophising (0.033). There is a weak negative correlation between variable positive reappraisal and variable blame for others (-0.088).

There is a weak negative correlation between variable putting into perspective and variable catastrophising (-0.055). There is a weak correlation between variable putting into perspective and variable blame for others (0.009). There is a weak negative correlation between variable catastrophising and variable blame for others (-0.073).

In this result, the relationship between PTSD and cognitive emotion regulation strategies based on police person worked in Trivandrum district was investigated. Specifically, the researcher examined cognitive emotion regulation strategies as factor that developed PTSD symptoms. The result showed that a significant but weak negative correlation between the variable PTSD and CERQ sub variable rumination (-0.164) and PTSD also shows a significant weak negative correlation with CERQ sub variable refocus on planning (-.174) at
0.05 level. Weak correlation may include that there is a possibility of other strong factors that influence development of PTSD. A meta- analysis study conducted by Aldao et al. (2015) study was supporting the present research. The result showed that rumination had the largest effect. And another study named “cognitive emotion regulation strategies and post-traumatic stress disorder” by Dongil Min et al. (2019). The result shows that maladaptive cognitive emotion regulation strategies, such as rumination, catastrophizing and self-balme are highly related to PTSD symptoms. According to Nadia Garnefski et al. (2017), the research named that

"Relationships between traumatic life events, cognitive emotion regulation strategies, and somatic complaints. The result showed that significant Pearson correlations were found between somatic complaints and various cognitive emotion regulation strategies; the strongest relationships were observed with self-blame, rumination, and catastrophizing. Further low to moderate correlations were observed among the cognitive emotion regulation strategies.

And also a significant weak positive correlation between the CERQ variable rumination and positive reappraisal (0.207) at 0.05 level, a significant weak negative correlation between refocus on planning and positive reappraisal (-0.162) at 0.05 level, a significant weak positive correlation between positive reappraisal and putting into perspective (0.175) at 0.05 level and finally a significant weak positive correlation between rumination and putting into perspective (0.264) at 0.01 level. There is only weak relation between these CERQ variables and there is a possibility that there are other variables that influence the tendency to use these strategies. The contradicting studies related to this research are: According to Amone-P‟ olak et al. (2007) the study named "cognitive emotion regulation in response to war experiences in Northern Uganda" the result shows that among adaptive emotion regulation strategies, mainly positive refocus were associated with lower trauma related symptoms. According to Koo H J et al. (2015) the study named "cognitive emotion regulation and moderating effects of adaptive cognitive emotion regulation in the link between traumatic life events and self-harm: focused on gender differences" the result shows that adaptive emotion regulation strategies were associated with reducing the level of self-harm, while negative emotions such as depression, anxiety, and anger are higher than average in this study.

PTSD and CERQ sub variables rumination and refocus on planning shows a weak negative correlation and this indicates that there is some level of relationship between PTSD and CERQ however there is only a weak relation it may indicate there are other factors that contribute to the development of PTSD.

The above mentioned correlated strategies are classified into maladaptive and adaptive strategies by Garnefski et al. in 2001. The rumination is a maladaptive strategy in cognitive emotion regulation (CER) strategy. And putting into perspective, positive reappraisal refocuses on planning are the adaptive strategy. CERQ rumination is an overthinking emotions and thoughts associated with negative events. Rumination is one of the similarities between anxiety and depression. The adaptive strategy putting into perspective is a relativizing a negative event by considering the impact over time. Positive reappraisal is a critical component of meaning-based coping that enables individuals to adapt successfully to stressfully to stressful life events (Eric Garland el al., 2009). In CERQ Positive reappraisal is a finding the silver lining by creating a positive meaning to negative events. Refocus on planning is thinking about what steps to take and how to handle the negative events (Garnefski et al., 2001). The maladaptive strategy can lead to psychological and emotional problems such as depression, anxiety or risky behaviour. The adaptive strategies that are related to better mental health and well-being. But in the research result showed that the adaptive and maladaptive strategies are leads to PTSD. Although the cognitive emotion regulation strategies can be directly related to PTSD symptoms or many negative emotional symptoms the present study results indicate the possibility of other underlying factors that may influence the development of PTSD.

CHAPTER 5 SUMMARY AND CONCLUSION

The present study had studied the relationship between cognitive emotion regulation strategies and PTSD in police personnel. The aim of the study is to understand which cognitive emotion regulation strategies are related to PTSD symptoms, and which helps to prevent the PTSD symptom. In this chapter consists summary of the study, methods in brief, major findings of the study, tenability of hypothesis, implications of the study, limitations of the study, suggestions for further research, conclusion.

SUMMARY OF THE STUDY

The brief description of the present study is described in this chapter. The study entitled as cognitive emotion regulation strategies and post-traumatic stress disorder among police person. On the basis of variable, population and literature review set the objectives.

Objective of the study is:

- To understand the type of cognitive emotion regulation strategy and post-traumatic stress disorder in police personnel.

Based on the research objectives the following hypothesis was formulated:

- There will be a significant relation between cognitive emotion regulation strategy and PTSD in police personnel.

METHODS IN BRIEF

The sample of present study is consists of 150 police person worked in Trivandrum district. Cognitive emotion regulation strategies and post-traumatic stress disorder were taken as variable for the study. The researcher collects the data from the police personnel, for the following tools were used to collect the data. The tools are:

- Personal data sheet
- Cognitive Emotion Regulation Questionnaire (CERQ) (Garnefski, N., Kraaji, V. Spinhoven, 2002).
- Post -Traumatic Stress disorder symptom Scale (PSS-I) interview (Elizabeth A. Hembree, Edna B.Foa, & Norah C. Feeny. The PTSD symptom scale (PSS-I), 1993.

The statistical analysis was carried out using SPSS version 20. Microsoft excel and Microsoft word was used to generate the result to compile the data. The statistical analysis was used to this study is:

- Pearson correlation technique

MAJOR FINDING

- There is a significant weak negative correlation between the variable PTSD and CERQ sub variable rumination in police personnel.
- There is a significant weak negative correlation between the variable PTSD and CERQ sub variable refocus on planning in police personnel.
- There is a significant weak positive correlation between the CERQ sub variable rumination and positive reappraisal in police personnel.
- There is a significant weak negative correlation between the CERQ sub variable refocus on planning and positive reappraisal in police personnel.
- There is a significant weak positive correlation between the CERQ sub variable positive

reappraisal and putting into perspective in police personnel.

- There is a significant weak positive correlation between the CERQ sub variable rumination and putting into perspective in police personnel.

TENABILITY OF HYPOTHESIS

NO	HYPOTHESIS	TENABILITY
1.	There will be a significant relation between cognitive emotion regulation strategy and PTSD in police personnel.	Partially Accepted

IMPLICATIONS OF THE STUDY

The police person faced a lot of stress in their daily working hours. And most of the police person had developed PTSD symptoms. In this research the strategies of CERQ sub variables, rumination and refocus on planning is developed the PTSD symptoms. Weak correlation may include that there is a possibility of other strong factors that influence development of PTSD. And the CERQ sub variable are show the significantly weak correlated with the variables of rumination and positive reappraisal, refocus on planning and positive reappraisal, positive reappraisal and putting into perspective, rumination and putting into perspective. There is only weak relation between these CERQ variables and there is a possibility that there are other variables that influence the tendency to use these strategies.

LIMITATIONS OF THE STUDY

Every investigator aims at keeping the study as objective and as accurate as possible. Limitations may occur due to constraints of the time factor. Therefore the research is having some limitations which are inevitable. Some of the major limitations are given below:

- The sample collected only in Trivandrum
- The sample was only focused on the police men. The women police was excluded.
- Could not identify unique cognitive emotion regulation strategies that are related to the characteristics of each traumatic event, such as war, rape, accidents etc.
- Could not analyse different factors, such as job title (SI, ASI, CPO, and SCPO etc.), educational qualification, marital status etc.

SUGGESTIONS FOR FURTHER RESEARCH

- To conduct the study on a wider sample.
- To conduct factor wise analysis.
- To conduct studies to realize the factors that influence cognitive emotion regulation and PTSD and explore other contributing factors for a better picture.
- To select the sample from different police station in different districts.

CONCLUSION

Everyone feels stressed from time to time. The difference is, with most people, it‟s momentary. There‟s an end date, but for police, it‟s something that is related to the negative pressures that come with wearing the badge. Police are affected by the daily exposure to human intense and pain. Over time dealing with a hostile public starts to take its toll on emotions. In the line of duty, police officers face more than public safety concerns. They deals with angry mob, traffic blocks, accidents, rape, murder etc. these negative experiences are leads to stress it will be mental and physical health, and later it‟s developed the post-traumatic stress disorder. The Buffalo Cardio- Metabolic Occupational Police Stress (BCOPS, University of Buffalo 2000) study was conducted over a 5 year period of examines the effects of stress on 464 members of Buffalo Police Department. The findings reveal that police officers experience daily psychological stress that puts them at an increased risk of various long-term health effects that may include cardiovascular disease, obesity, suicide, sleeplessness and cancer. There are many studies are supported the post-traumatic disorder of police personnel. In the job of police work is not time limit. If any problems are occurred they are ready to work protect the issue and the public. But if any issues are occurred with the police station (custody death, slowness of the investigation of a case etc.) or outside the police station (accidents, media pressures etc.) are influence the police personnel mental health.

The researcher was choosing the topic is to study about the police personnel stress and the development of post-traumatic stress disorder (PTSD). And to identify the influences of cognitive emotion regulation strategies in development of PTSD. In this research to understand which cognitive emotion regulation strategies are leads to PTSD and which one is not developed the PTSD or helps to prevent the PTS.

The maladaptive and some adaptive cognitive emotion regulation strategies are leads to development of post-traumatic stress disorder. The CERQ sub variable rumination (-0.164) at
0.05 level and refocus on planning (-0.174) at 0.05 level is leads to development of PTSD. Weak correlation may include that there is a possibility of other strong factors that influence development of PTSD. But these two variables are showing a significant weak correlation in CERQ sub variable and PTSD. And also showing only the weak correlation between the CERQ sub variables. The CERQ sub variable positive reappraisal and putting into perspective (0.175) at 0.05 level, rumination and putting into perspective (0.264) at 0.01 level, rumination and positive reappraisal (0.207) at 0.05 level show a significant weak positive correlation. And refocus on planning and positive reappraisal (-0.162) at 0.05 level show a significant weak negative correlation. There is only weak relation between these CERQ variables and there is a possibility that there are other variables that influence the tendency to use these strategies.

In this research was helps to find the stress of a police person and understand the influence of cognitive emotion regulation strategies in the development of PTSD. Helps to understand the cognitive emotion regulation strategies and PTSD, on the basis of tools used in this study.

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APPENDIX

INFORMED CONSENT FORM

I ....., here by consent to be included as a volunteer for the study "Cognitive Emotion Regulation Strategies and Post-traumatic Stress Disorder Among Police.", being conducted by Meera Raj B M , who is a MSc counselling psychology student in Loyola college of social sciences, Sreekaryam.

I am informed about the nature and purpose of the study. I am aware that participating in this research will not entail material benefits.

I have also been informed that the information that I have provided will remain confidential and I am free to drop out the study at any point of time.

Signature of the participant

Socio Demographic Data

1. Name :
2. Age :
3. Educational Qualification :
4. Marital Status :
5. Years of Experiences :
6. Nature of Job :
7. Job Title :
8. Whether you have availed the

   Option of transfer? If so, mentioned :

COGNITIVE EMOTION REGULATION STRATEGIES (CERQ)

Everyone gets confronted with negative or unpleasant events now and then and everyone responds to them in his or her own way. By the following questions you are asked to indicate what you generally think, when you experience negative or unpleasant events.

Sl. No.		(almost) never	sometimes	Regularly	Often	(almost) always
1	I feel that I am the one to blame for it ( )					
2	I think that I have to accept that this has happened ( )					
3	I often think about how I feel about what I have experienced ( )					
4	I think of nicer things than what I have experienced (.)					
5	I think of what I can do best ( )					
6	I think I can learn something from the situation. (ഇൗ)					
7	I think that it all could have been much worse. ( )					
8	I often think that what I have experienced is much worse than what others have experienced. ( )					
9	I feel that others are to blame for it. ( )					
10	I feel that I am the one who is responsible					

	for what has happened. ( )					
11	I think that I have to accept the situation. ( )					
12	I am preoccupied with what I think and feel about what I have experienced. ( )					
13	I think of pleasant things that have nothing to do with it. ( )					
14	I think about how I can best cope with the situation. (ഇ൩)					
15	I think that I can become a stronger person as a result of what has happened. ( )					
16	Think that other people go through much worse experiences. ( )					
17	I keep thinking about how terrible it is what I have experienced. ( )					
18	I feel that others are responsible for what has happened. ( )					

19	I think about the mistakes I have made in this matter. (ഇൗ)					
20	I think that I cannot change anything about it. ( )					
21	I want to understand why I feel the way I do about what I have experienced. (					
22	I think of something nice instead of what has happened. (					
23	I think about how to change the situation. ( )					
24	I think that the situation also has its positive sides.					
25	I think that it hasn't been too bad compared to other things. ( )					
26	I often think that what I haveexperienced is the worst that can happen to a person. ( )					
27	I think about the mistakes others have made in this matter. (ഇൗ)					
28	I think that basically the cause must lie within myself. ( )					

29	I think that I must learn to live with it. ( )					
30	I dwell upon the feelings the situation has evoked in me ഇൗ					
31	I think about pleasant experiences.					

	( )					
32	I think about a plan of what I can do best . ( )					
33	I look for the positive sides to the matter. ( )					
34	I tell myself that there are worse things in life. ( )					
35	I continually think how horrible the situation has been. ( )					
36	I feel that basically the cause lies with others. ( )					

PTSD SYMPTOM SCALE (PSS)

Name_____Date_____ (side one) Below is a list of traumatic events or situation. Please mark YES if you have experienced or witnessed the following events or mark NO if you have not had that experience.

1. Serious accident, fire or explosion YES/NO
, ?
2. Natural disaster YES/NO
?
3. Non sexual assault by someone you know YES/NO
?
4. Non sexual assault by stranger YES/NO
?
5. Sexual assault by a family member or someone you know YES/NO
6. Sexual assault by a stranger YES/NO
?
7. .Military combat or a war zone YES/NO
?
8. Sexual contact before you were age 18 with someone who was 5 or more years old than you YES/NO
?
9. Imprisonment? YES/NO
?
10. Torture. YES/NO
?
11. Life threatening illness YES/NO
?
12. Other traumatic events YES/NO
?
13. If other traumatic event is checked yes above: please write what the event was ----------
---
?
14. Of the question to which you answered yes, which was the worst (Please list the question) ----------
---
?
15. Which of the above incidences is the reason for which you are currently seeking treatment(Please list the question) ----------
---
?

If you answered NO to all of the above questions, stop

If you answered YES any of the above questions, please complete the rest of the form.

- Were you physically injured?

?

- Was someone else physically injured?

?

- Did you think your life was in danger?

?

- Did you think someone else's life was in danger?

?

- Did you feel helpless?

?

- Did you feel terrified?

?

Please complete both side of this document if you answered YES to any of the first series of questions (1-14).

PTSD SYMPTOM SCALE (PSS)

Below is a list of problem that people sometimes have after experiencing a traumatic event. Please rate on a scale from 0-3 how much or how often these following things have occurred to you in the last two

0 not at all

1 once per week or less/a little/one in a while

2 2 to 4 times per week/somewhat/half the time

3 3 to 5 or more times per week /very much/almost always

1. Having upsetting thought or images about the traumatic event that come into your head when you did not want them to (?)	0	1	2	3
2. Having bad dreams or nightmares about that traumatic event (?)	0	1	2	3
3. Reliving the traumatic event(acting as if it were happening again) (?)	0	1	2	3
4. Feeling emotionally upset when you are reminded of the traumatic event (?)	0	1	2	3
5. Experience physically reactions when reminded of the traumatic event(sweating, increased heart rate) (( )	0	1	2	3

6. Trying not think or talk about the traumatic events ( )	0	1	2	3
7. Trying to avoid activities or the people that remind you of the traumatic events ( )	0	1	2	3
8. Not being able to remember an important part of the traumatic event ( )	0	1	2	3
9. Having much less interest or participating much less often in important activities ( )	0	1	2	3
10.Feeling distant or cut off from the people around you (?)	0	1	2	3
11.Feeling emotionally numb (unable to cry or have love feelings) (( )	0	1	2	3

12.Falling as if you future hopes or plans will not come true (?)	0	1	2	3
13.Having trouble falling or staying asleep (?)	0	1	2	3
14.Feeling irritable or having fits or anger (?)	0	1	2	3
15.Having trouble concentrating (?)				
16.Being overly alert (?)	0	1	2	3
17.Being jumpy or easily startled (?)	0	1	2	3

Please mark YES or NO If the problems above interfered with the following

Work
( ) YES/ NO

Household duties
( ) YES/NO

Friendship
( ) YES/NO

Fun/leisure activities
(/) YES/NO

School work
( ) YES/NO

Family relationship
( ) YES/NO

Sex life
( ) YES/NO

General life satisfaction
( ) YES/NO

Overall functioning
( ) YES/NO