**Coping in Content Moderation: The Consequences of Emotion Regulation for Mental Health, Well-being and Burnout**

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As our world continues to become more technologically advanced, keeping social media platforms safe is becoming increasingly important. Therefore, moderators of these platforms serve a vital role in protecting users. Content moderators are digital gatekeepers that remove illegal or disturbing content from online platforms (Roberts, 2016). Importantly, content moderators must view explicit content that may be violent, pornographic or discriminatory in nature (Roberts, 2016). In addition to this, a moderator’s task involves great repetition of explicit content (Steiger et al., 2021). Given the repeated and explicit nature of the content these individuals view, their wellness and mental health may be adversely impacted (Wohn, 2019). However, there is a lack of empirical research on how moderators attempt to cope or regulate their emotions in order to counteract the effects of their work. Therefore, in this study, we aimed to assess how different emotion regulation strategies predict mental health and wellbeing in content moderators.

Only recently has content moderation been widely discussed in an academic setting. Moderators can be either unpaid volunteer moderators or commercial/paid moderators (Steiger et al., 2021). The focus of the current study is on commercial content moderators. Depending on the social media company, content moderators may take down content before or after it has been flagged as inappropriate (Roberts, 2016). Considering the emotional toll of the work, employees receive very little payment (Steiger et al., 2021). In addition, content moderation is usually outsourced on a global scale, thus moderators are usually not in the same geographical location as users nor the company they are moderating for (Roberts, 2016). Given that content moderation is dispersed on a global level, social norms, philosophies and morals may differ greatly across cultures. As a result, content moderators have to put their own personal morals and cultural values aside and moderate under the client’s morals or philosophies (Roberts, 2016; Roberts, 2019**).** Importantly, content moderators experience great distress when faced with this moral dilemma (Roberts, 2016; Roberts, 2019)**.** In addition, recent research on volunteer content moderators has suggested that content moderators are commonly exposed to two facets of trauma: primary trauma (viewing traumatic content directly) and secondary (vicarious) trauma (Wohn, 2019). Secondary trauma is likely to occur when a content moderator is exposed to content in which an individual is traumatized themselves and in turn the moderator is exposed to the traumatic content indirectly (Wohn, 2019).

 Although there is a lack of scientific research investigating this issue, studies on similar highly stressful occupations have suggested that being indirectly exposed to traumatic content may have detrimental consequences on mental health outcomes. For example, many journalists exposed to graphic user-generated content and 911 telecommunicators reported experiencing symptomology similar to that expressed in people with posttraumatic stress disorder (PTSD) (Feinstein et al., 2014; Pierce & Lilly, 2012). Also, investigators on police teams investigating Internet Child Exploitation (ICE) are exposed to extremely explicit content involving young children and may experience the effects of secondary trauma (Burns et al., 2008). ICE team members reported many ways in which their work impacted their wellbeing. For example, some team members experienced flashbacks or nightmares about the content they viewed, inability to talk about images to friends and family members, and physical or emotional symptoms such as severe headaches and burnout (Burns et al., 2008). Content moderators have reported similar impacts on their everyday lives (Steiger et al., 2021). Overall, the effects of secondary trauma likely influence content moderators, given the repetition and explicit content they view. It is important to understand how content moderators respond to frequent emotionally evocative events. However, to date, there is no published research investigating emotion regulation in commercial content moderators.

Emotion regulation involves attempting to alter how an individual may experience or express emotions, and the type of emotion they experience (Gross, 2015). This process may be conscious or unconscious and may alter the negative affect a person may experience (Gross. 2002; Troy et al. 2010). Interestingly, effective regulation of emotions is critical for our mental health and protects us against depressive symptoms and psychopathology more broadly (Beck, Rush, Shaw, & Emery, 1979; Troy et al. 2010). In addition to this, disorders such as depression and anxiety are viewed as difficulties in emotion regulation (Aldao & Nolen-Hoeksema, 2010).

According to the Process Model of Emotion Regulation, people draw on three types of emotion regulation strategies: situation-focused strategies (changing a situation we are currently in or by avoiding or choosing a situation altogether, cognition-focused strategies, and response-focused strategies (tactics a person may use after or during an emotional event that is taking place) (Gross, 2002). Our study shall focus on cognition-focused strategies, which involve cognitive change in which a person may focus on certain aspects of a situation (e.g. “this situation could be a lot worse”) (Gross. 2002). As a result, this may change an individual’s emotional state (i.e. magnifying/decreasing the emotion) or may change their emotional response altogether (i.e. sadness transforming to happiness) (Gross. 2002). These strategies include rumination, acceptance, cognitive reappraisal, and distraction (Gross. 2002; Shiota & Kalat, 2018).

Common cognition-focused strategies include reappraisal and problem-solving (Aldao & Nolen-Hoeksema, 2010). Reappraisal involves altering an interpretation of an emotional event to reduce distress outcomes (Aldao et, 2010; Gross, 2001; Troy, Wilhelm, Shallcross & Mauss, 2010). In addition, this strategy predicts reduced negative emotion, increased positive emotion, and positive health outcomes (Aldao et, 2010; Gross, 2001; Troy et al. 2010). Importantly, cognitive reappraisal moderates the relationship between stress and depression (Troy et al., 2010). Meaning, at high levels of stress, individuals who use high amounts of cognitive reappraisal is associated with less depressive symptoms than those individuals with who use low amounts of cognitive reappraisal (Troy et al., 2010). However, research also suggests cognitive reappraisal is only associated with less depressive symptoms and increased well-being when the stressors are uncontrollable (Ford & Troy, 2019). Given that content moderators are repeatedly exposed to explicit content in which they have no control over, reappraisal is likely an effective strategy for them to use in order to decrease depressive symptoms in times of highly stressful events.

 In contrast to the benefits of employing adaptive cognition-focused strategies, maladaptive cognition-focused strategies may also be employed. Although both are cognition-focused strategies, the consequences for employing either an adaptive or maladaptive strategy are incredibly divergent. A common maladaptive emotion regulation strategy is rumination. This cognitive process involves focusing intensely on a negative experience of the emotion in a way which does not activate problem solving in an individual (Nolen-Hoeksema, 2000). In addition, rumination has been associated with the development of distress disorders: anxiety and depression (Nolen-Hoeksema, 2000). Overall, effective and adaptive emotion regulation predicts beneficial health outcomes (Aldao & Nolen-Hoeksema, 2010). Contrastingly, unsuccessfuleffective,regulation is related to developing symptoms of mental disorders (Aldao & Nolen-Hoeksema, 2010; Beck, Rush, Shaw, & Emery, 1979).

The distinction between adaptive and maladaptive strategies and their relation to psychopathology is not clearcut. Rather, flexibly using various repertoires in emotion regulation is more predictive of psychopathology symptoms (Aldao & Nolen-Hoeksema, 2012). Thus, the use of adaptive strategies prevents the development of psychopathology symptoms only when the person uses maladaptive strategies often (Aldao & Nolen-Hoeksema, 2012). Other researchers have further emphasized the role of flexibility in emotion regulation for adaptive outcomes (Aldao et al., 2015). In the profession of content moderation it may be useful to investigate the flexibility and usage of emotion regulation strategies and how this may predict burnout. However, no research has investigated emotion regulation in this population. The current study is a part of a larger project, therefore we shall not be investigating flexibility at this time.

A strong relationship exists between stressors and burnout rates, where high levels of occupational stressors increases the amount of burnout an individual experiences (Schaufeli & Greenglass, 2001; Sun et al., 2018). Burnout is characterized by three separate aspects: emotional exhaustion (where an individual may lose interest in their job), depersonalization (becoming impersonal and uncompassionate) and lack of personal accomplishment (the job at hand is not seen as meaningful anymore) (Schaufeli & Greenglass, 2001). It is important to note that given the characteristics of burnout, there is an overlap with depression, in which clinical depression and burnout conceptually speaking overlap (Bianchi et al., 2015).

Given that content moderators have high burnout rates, we shall be assessing the relationship between emotion regulation use and burnout among employees in similar occupations (Roberts, 2019, p.222). Recent research on nurses, another group experiencing high occupational stress and burnout, suggests that cognitive reappraisal is associated with reduced burnout including depersonalization (Bamonti et al., 2019; Sun et al., 2018). In contrast, the use of rumination was found to be associated with emotional exhaustion (a characteristic of burnout) as well as higher burnout rates in general (Donahue et al., 2012; Sun et al., 2018). In addition, research studying perfectionist students suggests that students who ruminate over their failures may increase burnout (Ijaz & Khalid, 2020). Therefore, reappraisal may protect against burnout and rumination may have the opposite impact. However, reappraisal may not always be readily available across contexts. For example, Israeli health care workers under intense stress during the COVID-19 pandemic showed no such relationship between habitual use of reappraisal and burnout (Khouri et al., 2022). Therefore, the use of reappraisal and its connection to burnout may depend on the intensity of the experienced stressors.

In sum, most studies to date have found that reappraisal is positively associated with wellbeing and is negatively associated with burnout (Sun et al., 2018). In contrast, rumination is negatively associated with wellbeing and positively associated with burnout (Sun et al., 2018). In addition, the current literature suggests that emotion regulation flexibility is the best predictor of well-being and mental health when compared to single strategy usage (Aldao & Nolen-Hoeksema, 2012). However, the relationship between emotion regulation and burnout and mental health has not been examined in the content moderator population. Given their repeated exposure to negative content, these individuals form a unique population in which to study the role of emotion regulation in predicting mental health.

Overall, the proposed correlational study will provide insight into the roles of cognitive reappraisal and rumination in mental health outcomes in content moderators. This research is critical since there has been a lack of awareness and research focusing on mental health outcomes in content moderators whose role is becoming increasingly important for keeping the Internet safe. Ultimately, this study will lead to future research to design effective interventions to enhance well-being and mental health in this vulnerable group. Participants will complete self-report measures assessing emotion regulation use, burnout, and mental health on two occasions, six months apart. I predict that the use of reappraisal will be negatively associated with burnout and psychopathology symptoms. Also, higher use of rumination will be associated with higher levels of burnout and psychopathology symptoms.

**Methods**

**Participants**

Participants (*N* = 200, assuming *r* = .25, power = .90, α = .05, and allowing for attrition) will be recruited from Rebuilding Thoughts, an emotional wellness service offering employees one-to-one and group therapy/coaching. To be considered eligible for this two-part study, participants must be fluent in English, be between the ages of 18 and 55, reside in Canada or the United States, and have been employed as a content moderator for a minimum of three months. Participants who complete all parts of the study will receive compensation for their time of their choice of an Amazon gift card, prepaid Visa card, or cash via PayPal. Compensation for part one will be $8 and compensation for part two will be $12. This study received ethical approval from the Thompson Rivers University Research Ethics Board.

**Design**

This study will be a two-part correlational design. All participants will complete a number of items to assess their use of emotion regulation strategies, emotion regulation flexibility, well-being, emotion beliefs, personal control and symptoms of psychopathology. Afterwards they will complete a questionnaire with a variety of measures.

**Measures and Procedures**

Using the Gorilla online experiment platform, participants will complete a survey consisting of the following self-report measures. Eligible participants will receive an email from the Managing Partner of Rebuilding Thoughts that contains a link to complete the study on the Gorilla online experiment platform (see Appendix A). After giving informed consent participants will answer demographic questions regarding sex, ethnicity, nationality, gender, highest education level completed and the total amount of time across all contracts they have been employed as a content moderator (Appendix C). Afterwards they will complete a questionnaire with a variety of measures. This project is part of a larger study[[1]](#footnote-1); thus, the measures described below are relevant to the current hypotheses.

**The Depression Anxiety Stress Scale (DASS).**

The DASS consists of 21 items assessing three categories of negative emotional states: depression, anxiety, and stress 21 (DASS-21; Lovibond & Lovibond, 1995; see appendix K). Participants will rate each statement on a 4-point scale from 0 (did not apply to me at all) to 3 (applied to me very much or most of the time) (Lovibond & Lovibond, 1995). Examples of items include “I couldn’t seem to experience any positive feeling at all” and “I tended to over-react to situations”.

**The Oldenburg Burnout Inventory (OLBI).** The OLBI consists of 16 items to measure two core dimensions of burnout: exhaustion and disengagement (Demerouti et al., 2010; see appendix L). Participants will indicate the extent to which they agree with each statement on a 4-point scale (1 = “Strongly agree,” 4 = “Strongly disagree”) (Demerouti et al., 2010). Examples of items include “I can tolerate the pressure of my work very well” and “During my work, I often feel emotionally drained” (Demerouti et al., 2010).

**Well-being.** Participants will complete a battery of measures assessing hedonic and eudaimonic well-being (including the Satisfaction with Life Scale, Experience of Meaning, and measures of positive and negative affect) (Huta, 2013; see appendix N).

**The Cognitive Emotion Regulation Questionnaire (CERQ).** The CERQ consists of 36 items assessing the use of nine cognition-based emotion regulation strategies (self-blame, acceptance, rumination, positive refocusing, refocus on planning, positive reappraisal, putting into perspective, catastrophizing, and other-blame) (e.g., Examples of items include “I tell myself I shouldn’t be feeling the way I’m feeling” and “I disapprove of myself when I have illogical ideas'') (Garnefski, Kraaij & Spinhoven 2001; see appendix D). Participants will “indicate what [they] generally think, when [they] think about the negative or unpleasant parts of [their] work as a content moderator”” on a 5-point scale (1 = “Almost never,” 5 = “Almost always”) (Garnefski, Kraaij & Spinhoven 2001). Examples of items include “I think of something nice instead of what has happened” and “I continually think how horrible the situation has been” (Garnefski, Kraaij & Spinhoven 2001). Additionally, five items from the Non-Judgment Scale (adapted from the Five Facet Mindfulness Questionnaire, Bohlmeijer et al., 2011; see appendix E) will be embedded within the CERQ.

**Attention Checks.** Five items from the Conscientious Responders Scale (CRS; Marjanovic et al., 2014, see appendix O) will be embedded within the questionnaires. Each CRS item instructs participants to select a certain option when completing the item to ensure they are paying attention (or example, (“Choose the first option: “Never” in answering this question”). Participants answering three or more attention checks incorrectly will be excluded from analyses.

Lastly, participants will be debriefed (see Appendix P). Participants that successfully complete the survey will be followed up via email six months later to complete the same measures again on Gorilla. In addition, in part two, we will ask participants if they are still working as a content moderator and if not, how long it has been since they left that role. They will also be asked if they have accessed any mental health resources (e.g., therapy, support from Rebuilding Thoughts).

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**Appendices**

**Appendix A: Recruitment Email**

“Hello, we are Hayleigh Armstrong and Casey Hopper from Thompson Rivers University. We are working with our supervisor Dr. Catherine Ortner who is the head of the Emotion Science Lab at TRU. We are looking for content moderators to answer a survey that focuses on their feelings and behaviours related to their job. Ultimately, we hope the results of this study will enhance our understanding of how content moderators cope with their work.

If you are 18-55 years-old, fluent in English, from the US or Canada, and have worked as a contract moderator (total time across all contracts) for three months or more, you are eligible to take part in the study.

This study will be in two parts. If you complete part 1, 6 months from now you will receive an email to invite you to part 2.

Part 1 will take around 30-35 minutes to complete. If you complete all of part 1, you will receive $8 for your participation, paid as an Amazon gift card, a Visa card, or cash via Paypal – your choice.

Part 2 will take around 30-35 minutes to complete. If you complete all of part 2, you will receive $12 for your participation, again paid as an Amazon gift card, a Visa card, or cash via Paypal – your choice.

We thank you for your time today. We wouldn’t be able to conduct this research without participants giving us their time and attention so that we can gain a better understanding of peoples’ responses to content moderation work.

Click on this link to complete the survey: [insert link here]

**Appendix B: Informed Consent**



Dear Participant,

Thank you very much for participating in this study, **Coping in Content Moderation.**

You have been asked to participate in a research project by Dr. Catherine Ortner, Hayleigh Armstrong, and Casey Hopper of the Psychology Department of Thompson Rivers University, Kamloops, BC, Canada, (+1-250-828-5497, cortner@tru.ca), in collaboration with Nadia Brown, Managing Partner at Rebuilding Thoughts.

The purpose of this research is to study how content moderators cope with the content they view while working. In this study, you will answer some questions about your feelings and behaviours related to your work, as well as some general questions about your mental health and well-being.

This study will be in two parts. If you complete part 1, six months from now you will receive an email to invite you to part 2.

**Part 1** will take around 30-35 minutes to complete. If you complete all of part 1, you will receive $8 for your participation, paid as an Amazon gift card, a Visa card, or cash via Paypal – your choice.

**Part 2** will take around 30-35 minutes to complete. If you complete all of part 2, you will receive $12 for your participation, again paid as an Amazon gift card, a Visa card, or cash via Paypal – your choice.

The researchers do not foresee any long-term risk or discomfort associated with participating in this study. However, it may be upsetting to think about the nature of content moderation work. If you have any concerns about your well-being, you may seek support via the Rebuilding Thoughts app and self-guided wellness cards; one-to-one private therapy from Rebuilding Thoughts; and Rebuilding Thoughts’ webpage linking to mental health resources.

You may not directly benefit from participating in this study, but information gathered may help us understand how content moderators feel in response to their work. Your answers will not be viewed individually; rather each person’s answers will be combined with those of all other participants.

All the data collected for this study will remain confidential. No identifying information will be collected, except for your email address for receiving an invitation to 6-month follow-up survey. We shall retain email addresses for a period of 3 years, in the event that we wish to invite you to complete further follow-up surveys.

This study is conducted by researchers in Canada and will use Gorilla for administering the study. Gorilla is hosted on Microsoft Azure, with servers in North Europe, within the EU (Republic of Ireland). All traffic to and from Gorilla is encrypted ((TLS/SSL) using industry-standard cryptography. Apart from email addresses, no personal or identifying information will be collected through Gorilla. The data will be used for research purposes only. After removing email addresses, the raw data from the study may be made publicly available on TRUSpace, Open Science Framework, or another open access repository, but this will be in a manner that does not identify you. The study results may be presented in summary format at conferences and/or published in scholarly journals.

Participation in this study is entirely voluntary. You may refuse to participate or withdraw your participation in this project at any time without any negative consequences. If you wish to withdraw, simply close the internet browser.

You may ask any questions or register any complaint you might have about the project with either the chief researcher named above or with the Dean of Arts, TRU (+1-250-828-5000). If you have any questions or issues concerning this project that are not related to the specifics of the research, you may also contact the Chair of the Research Ethics Board – Human Participants (+1-250-828-5000).

Copies of the results of this study, upon its completion, may be obtained by emailing the supervising investigator, Dr. Catherine Ortner at cortner@tru.ca after August 2023.

**We appreciate your effort and help in completing this study. To begin please click the box below. Your completion of the survey constitutes your consent to participate in the study.**

Thank you very much for your time and cooperation.

By clicking this box, you agree to the above information.

**Appendix C: Demographic Information**

What is your age?

\_\_\_\_\_

What sex were you assigned at birth, on your original birth certificate?

 \_\_\_\_\_ Male

 \_\_\_\_\_ Female

What is your gender identity?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is the highest level of school you have completed or the highest degree you have received?

\_\_\_ Less than high school degree

\_\_\_ High school degree or equivalent (e.g., GED)

\_\_\_ Some university but no degree

\_\_\_ Bachelor’s degree

\_\_\_ Master’s degree

\_\_\_ Graduate degree

Is English your first language?

\_\_\_ Yes

\_\_\_ No

How long have you worked as a content moderator (total time across all contracts)?

\_\_\_\_ years, \_\_\_\_ months

**Appendix D: Content Moderation CERQ**

(Adapted from Garnefski et al., 2001)

**How do you cope with your work as a content moderator?**

Content moderators get confronted with different types of content and everyone responds to it in their own way. Please indicate what you generally think when you think about the negative or unpleasant parts of your work as a **content moderator**.

**When I think about the negative or unpleasant parts of my work as a content moderator…**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | (almost) never | sometimes | regularly | often | (almost) always |
|  1. 1 feel that I am the one to blame for it | 1 | 2 | 3 | 4 | 5 |
|  2. I think that I have to accept that it is happening | 1 | 2 | 3 | 4 | 5 |
|  3. I often think about how I feel about what I am experiencing | 1 | 2 | 3 | 4 | 5 |
|  4. I think of nicer things than what I am experiencing | 1 | 2 | 3 | 4 | 5 |
|  5. I think of what I can do best | 1 | 2 | 3 | 4 | 5 |
|  6. I think I can learn something from the situation | 1 | 2 | 3 | 4 | 5 |
|  7. I think that it all could be much worse | 1 | 2 | 3 | 4 | 5 |
|  8. I often think that what I am experiencing is much worse than what others are experiencing | 1 | 2 | 3 | 4 | 5 |
|  9. I feel that others are to blame for it | 1 | 2 | 3 | 4 | 5 |
| 10. I feel that I am the one who is responsible for what is happening | 1 | 2 | 3 | 4 | 5 |
| 11. I think that I have to accept the situation | 1 | 2 | 3 | 4 | 5 |
| 12. I am preoccupied with what I think and feel about what I am experiencing  | 1 | 2 | 3 | 4 | 5 |
| 13. I think of pleasant things that have nothing to do with it | 1 | 2 | 3 | 4 | 5 |
| 14. I think about how I can best cope with the situation  | 1 | 2 | 3 | 4 | 5 |
| 15. I think that I can become a stronger person as a result of what is happening | 1 | 2 | 3 | 4 | 5 |
| 16. I think that other people go through much worse experiences | 1 | 2 | 3 | 4 | 5 |
| 17. I keep thinking about how terrible it is what I am experiencing | 1 | 2 | 3 | 4 | 5 |
| 18. I feel that others are responsible for what is happening | 1 | 2 | 3 | 4 | 5 |
| 19. I think about the mistakes I have made in this matter  | 1 | 2 | 3 | 4 | 5 |
| 20. I think that I cannot change anything about it | 1 | 2 | 3 | 4 | 5 |
| 21. I want to understand why I feel the way I do about what I am experiencing | 1 | 2 | 3 | 4 | 5 |
| 22. I think of something nice instead of what is happening | 1 | 2 | 3 | 4 | 5 |
| 23. I think about how to change the situation | 1 | 2 | 3 | 4 | 5 |
| 24. I think that the situation also has its positive sides | 1 | 2 | 3 | 4 | 5 |
| 25. I think that it isn’t too bad compared to other things | 1 | 2 | 3 | 4 | 5 |
| 26. I often think that what I am experiencing is the worst that can happen  | 1 | 2 | 3 | 4 | 5 |
| 27. I think about the mistakes others have made in this matter  | 1 | 2 | 3 | 4 | 5 |
| 28. I think that basically the cause must lie within myself | 1 | 2 | 3 | 4 | 5 |
| 29. I think that I must learn to live with it | 1 | 2 | 3 | 4 | 5 |
| 30. I dwell upon the feelings the situation has evoked in me | 1 | 2 | 3 | 4 | 5 |
| 31. I think about pleasant experiences | 1 | 2 | 3 | 4 | 5 |
| 32. I think about a plan of what I can do best  | 1 | 2 | 3 | 4 | 5 |
| 33. I look for the positive sides to the matter | 1 | 2 | 3 | 4 | 5 |
| 34. I tell myself that there are worse things in life | 1 | 2 | 3 | 4 | 5 |
| 35. I continually think how horrible the situation is | 1 | 2 | 3 | 4 | 5 |
| 36. I feel that basically the cause lies with others | 1 | 2 | 3 | 4 | 5 |

**Appendix E: Non-Judgment Scale**

(Adapted from Bohlmeijer et al., 2011)

(Note: these items will be embedded within the CERQ, Appendix D.)

Please read the following statements and indicate what you generally think when you think about the negative or unpleasant parts of your work as a content moderator.

**When I think about the negative or unpleasant parts of my work as a content moderator…**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | (almost) never | sometimes | regularly | often | (almost) always |
|  1. I tell myself I shouldn’t be feeling the way I’m feeling. | 1 | 2 | 3 | 4 | 5 |
|  2. I make judgments about whether my thoughts are good or bad. | 1 | 2 | 3 | 4 | 5 |
|  3. I tell myself that I shouldn’t be thinking the way I’m thinking. | 1 | 2 | 3 | 4 | 5 |
|  4. I think some of my emotions are bad or inappropriate and I shouldn’t feel them. | 1 | 2 | 3 | 4 | 5 |
|  5. I disapprove of myself when I have illogical ideas. | 1 | 2 | 3 | 4 | 5 |

**Appendix F: Emotion Regulation Questionnaire – Expressive Suppression (ERQ-suppression)**

(Gross & John, 2003)

We would like to ask you some questions about your emotional life, in particular, how you control (that is, regulate and manage) your emotions. The questions below involve two distinct aspects of your emotional life. One is your emotional experience, or what you feel like inside. The other is your emotional expression, or how you show your emotions in the way you talk, gesture, or behave. Although some of the following questions may seem similar to one another, they differ in important ways. For each item, please answer using the following scale:

1 = strongly disagree, 4 = neutral, 7 = strongly agree

1. I keep my emotions to myself
2. When I am feeling positive emotions (such as joy or amusement), I am careful not to express them.
3. I control my emotions by not expressing them.
4. When I am feeling negative emotions (such as sadness or anger), I make sure not to express them.

**Appendix G: Up-regulation of positive emotions**

(Livingstone & Srivastava, 2012)

Below is a list of behaviors that people sometimes use to influence how they feel. For each item, please rate how often you use that behavior specifically to create or maintain positive emotions (such as joy, contentment, pride, or love). Please use the following scale:

Never 1 Rarely 2 Sometimes 3 Often 4 Very often 5

Put myself in a situation I know will make me feel good

Savor the moment

Think of future events I’m looking forward to

Seek out a friend or friends

Seek out support and encouragement

Direct conversations to pleasant things

Use my talents to accomplish something

Meditate or engage in spiritual practices

Consult my faith

Engage in religious activity

Take a challenge to the next level

Accomplish something I’ve been putting off

Finish a task or work towards a goal

Drink alcohol

Seek praise from others

Buy something for myself

Drink coffee or a caffeinated beverage/energy drink

Put off chores or duties

Fantasize or daydream

Think of people who are worse off

**Appendix H: Emotion Beliefs Questionnaire (EBQ)**

(Becerra et al., 2020)

This questionnaire asks about your beliefs about emotions in general. Some questions ask about negative emotions (e.g., sadness, fear, and anger). Other questions ask about positive emotions (e.g., happiness, joy, and amusement). For each statement, please rate **how much you agree or disagree that the statement is true in general**.

Items are rated on a 7-point Likert scale (1 - Strongly disagree, 3 - Neither agree nor disagree, 7 - Strongly agree)

1. Once people are experiencing negative emotions, there is nothing they can do about modifying them.
2. People cannot control their positive emotions.
3. There is very little use for negative emotions.
4. Positive emotions are very unhelpful to people.
5. It doesn’t matter how hard people try, they cannot change their negative emotions.
6. People cannot learn techniques to effectively control their positive emotions.
7. People don’t need their negative emotions.
8. There is very little use for positive emotions.
9. People cannot control their negative emotions.
10. It doesn’t matter how hard people try, they cannot change their positive emotions.
11. Negative emotions are harmful.
12. People don’t need their positive emotions.
13. People cannot learn techniques to effectively control their negative emotions.
14. Once people are experiencing positive emotions, there is nothing they can do about modifying them.
15. The presence of negative emotions is a bad thing for people.
16. Positive emotions are harmful.

**Appendix I: Emotion Regulation Flexibility (FlexER-10)**

(Dorfel et al., in preparation)

We would like to ask you some questions about the way you deal with your feelings. We are interested in whether and how you choose from different strategies, and whether your strategies are successful. A strategy would be, for example, to think differently to reduce negative feelings or another strategy would be not to show feelings to others. One could also reduce tension by breathing or distract oneself. To evoke a certain emotion (e.g., anger) you could remember a previous experience. However, these are only a few examples of strategies for managing emotions.

Although some of the questions may sound quite similar, they differ in some essential points.

Please answer the questions according to the given scale.

“I perfectly agree” – “I agree” – “I agree a little” - “I do not agree at all”

1. When my emotions interfere with the successful execution of a task, I have strategies to influence my feelings.

2. If it helps a goal, I may also reduce positive feelings in some situations.

3. If I must reduce my positive feelings, I have several strategies to achieve this.

4. If I cannot successfully change my mood with one strategy, I try another strategy.

5. If I want to feel less negatively, I have several methods to achieve this.

6. If I want to feel more positively, I have several ways to achieve this.

7. I have the choice between different strategies to deal with my feelings.

8. If necessary, I also intensify a negative feeling in order to be successful.

9. If I want to put myself in a negative mood, I have strategies to achieve this.

10. If I want to change my feelings, I do know that there are different strategies.

**Appendix J: Pearlin Mastery Scale**

(Pearlin & Schooler, 1978)

For the next set of statements, please think about whether you agree or disagree with the statement.

Response options range from 1, strongly disagree, to 7, strongly agree.

I have little control over the things that happen to me.

There's no way I can solve some of the problems I have.

There is little I can do to change many of the important things in my life.

Often I feel helpless in dealing with the problems of life.

Sometimes I feel like I am being pushed around in life.

What happens to me in the future mostly depends on me. (reverse)

I can do just about anything I really set my mind to do. (reverse)

**Appendix K: Depression Anxiety and Stress Scale-21 (DASS-21)**

(Lovibond & Lovibond, 1995)

Please read each statement and [choose] a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the **past week**. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all

1 Applied to me to some degree, or some of the time

2 Applied to me to a considerable degree, or a good part of time

3 Applied to me very much, or most of the time

1. I found it hard to wind down
2. I was aware of dryness of my mouth
3. I couldn't seem to experience any positive feeling at all
4. I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion)
5. I found it difficult to work up the initiative to do things
6. I tended to over-react to situations
7. I experienced trembling (e.g., in the hands)
8. I felt that I was using a lot of nervous energy
9. I was worried about situations in which I might panic and make a fool of myself
10. I felt that I had nothing to look forward to
11. I found myself getting agitated
12. I found it difficult to relax
13. I felt down-hearted and blue
14. I was intolerant of anything that kept me from getting on with what I was doing
15. I felt I was close to panic
16. I was unable to become enthusiastic about anything
17. I felt I wasn't worth much as a person
18. I felt that I was rather touchy
19. I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)
20. I felt scared without any good reason
21. I felt that life was meaningless

**Appendix L: The Oldenburg Burnout Inventory (OLBI)**

(Demerouti et al., 2010)

The following statements refer to your feelings and attitudes during work. Please indicate to what extent you agree with each of the following statements by selecting the number that corresponds with the statement.

The rating scale is as follows:

1 Strongly Agree

2 Agree

3 Disagree

4 Strongly Disagree

1. I always find new and interesting aspects in my work
2. There are days when I feel tired before I arrive at work
3. It happens more and more often that I think about my work in a negative way
4. After work, I tend to need more time than in the past in order to relax and feel better
5. I can tolerate the pressure of my work very well
6. Lately, I tend to think less at work and do my job almost mechanically
7. I find my work to be a positive challenge
8. During my work, I often feel emotionally drained
9. Over time, one can become disconnected from this type of work
10. After working, I have enough energy for my leisure activities
11. Sometimes I feel sickened by my work tasks
12. After my work, I usually feel worn out and weary
13. This is the only type of work that I can imagine myself doing
14. Usually, I can manage the amount of my work well
15. I feel more and more engaged in my work
16. When I work, I usually feel energized

**Appendix M: Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5)**

(Blevins et al., 2015)

Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then choose one of the numbers to indicate how much you have been bothered by that problem in the **past month**.

The rating scale is as follows:

0 Not at all

1 A little bit

2 Moderately

3 Quite a bit

4 Extremely

**In the past month, how much were you bothered by:**

1. Repeated, disturbing, and unwanted memories of the stressful experience?
2. Repeated, disturbing dreams of the stressful experience?
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?
4. Feeling very upset when something reminded you of the stressful experience?
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?
6. Avoiding memories, thoughts, or feelings related to the stressful experience?
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?
8. Trouble remembering important parts of the stressful experience?
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me,
no one can be trusted, the world is completely dangerous)?
10. Blaming yourself or someone else for the stressful experience or what happened after it?
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?
12. Loss of interest in activities that you used to enjoy?
13. Feeling distant or cut off from other people?
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?
15. Irritable behavior, angry outbursts, or acting aggressively?
16. Taking too many risks or doing things that could cause you harm?
17. Being “superalert” or watchful or on guard?
18. Feeling jumpy or easily startled?
19. Having difficulty concentrating?
20. Trouble falling or staying asleep?

**Appendix N: Well-being**

(Huta, 2013)

(Items assessing positive affect, negative affect, self-esteem, carefreeness, elevating experience, and self-connectedness are being given in the following intermixed format.)

**Please indicate how much you TYPICALLY feel each of the following states.**

**1 = not at all, 7 = extremely**

happy - PA

carefree - CAREFREE

frustrated - NA

inspired – ELEVATED

depressed - NA

connected with myself – SELF\_CONNECTED

easygoing - CAREFREE

in awe – ELEVATED

deeply appreciating – ELEVATED

that I know who I am – SELF-CONNECTED

unhappy - NA

lighthearted - CAREFREE

in wonder - ELEVATED

enriched - ELEVATED

that I have a clear sense of my values – SELF-CONNECTED

profoundly touched by experiences - ELEVATED

enjoyment/fun - PA

spiritually uplifted - ELEVATED

joyful - PA

detached from my troubles - CAREFREE

part of something greater than myself – ELEVATED

I have high self-esteem – SELF-ESTEEM

free of concerns - CAREFREE

angry/hostile - NA

morally elevated – ELEVATED

emotionally moved - ELEVATED

connected with a greater whole - ELEVATED

aware of how I feel – SELF-CONNECTED

pleased - PA

happy-go-lucky - CAREFREE

worried/anxious - NA

part of some greater entity - ELEVATED

aware of what matters to me – SELF-CONNECTED

like I’m in the presence of something grand - ELEVATED

|  |
| --- |
|  |

Experience of meaning:

**To what degree do you TYPICALLY feel that YOUR ACTIVITIES AND EXPERIENCES are:**

**1 = not at all, 7 = very much**

meaningful

valuable

precious

full of significance

something I can treasure

dear to me

playing an important role in some broader picture

making a lot of sense to me

I can see where they fit into the bigger picture

I can see how they all add up

they contribute to various aspects of myself

they contribute to my community or the broader world

(Subjective) vitality:

**To what degree do you TYPICALLY feel each of the following:**

**1 = not at all true, 7 = very much true**

I feel energized

I feel alive and vital

I have energy and spirit

I nearly always feel alert and awake

I look forward to each new day

I feel so alive I just want to burst

Satisfaction With Life Scale, AKA Life satisfaction:

**Below are five statements with which you may agree or disagree. Using the 1-7 scale below, pick the number which corresponds with the answer that is most true of you. Please be open and honest in your responding.**

**1 = strongly disagree, 7 = strongly agree**

In most ways, my life is close to my ideal.

The conditions of my life are excellent.

I am satisfied with my life.

So far I have gotten the important things I want in life.

If I could live my life over, I would change almost nothing.

**Appendix O: Conscientious Responders Scale (CRS)**

(Adapted from Marjanovic et al., 2014)

Five attention checks will be randomly embedded into the study:

1. Choose the first option: "Never" in answering this question.
2. To answer this question, please choose the fourth option, “Often”.
3. Please answer this question by choosing the last option, “Always.”
4. Choose the third option: “Quite a bit” in answering this question.
5. To answer this question, please choose the second option, “Agree”.

**Appendix P: Debriefing**

Dear Participant,

Thank you for participating in this study, **Coping in Content Moderation**. Your responses help us better understand how content moderators cope with the content they view and how this may affect their mental health.

In this first part of this study, you answered questions measuring how you respond to the difficult aspects of your work, as well as how you respond to positive emotions, your beliefs about emotions, and your general mental health and well-being.

Overall, this study will help us understand how the ways in which people react to emotional situations, both positive and negative, can influence their long-term mental health and well-being. In addition, we hope to better understand why people may choose to control their emotions in different ways. This research will eventually lead to better interventions to support people employed in highly stressful work environments, including content moderation. This research is therefore critical, given the lack of research focusing on well-being in content moderators and their increasingly important role in keeping the Internet safe.

[*In Part 1 only:* In 6 months, we shall send you an email inviting you to complete Part 2 of the study.]

It may be upsetting to think about the nature of content moderation work. If you have any concerns about your well-being, you may seek support via the Rebuilding Thoughts app and self-guided wellness cards; one-to-one private therapy from Rebuilding Thoughts; and Rebuilding Thoughts’ webpage linking to mental health resources.

Thank you for your time, and if you have questions about the study, please do not hesitate to contact us by sending a message to the research supervisor, Catherine Ortner, Department of Psychology, at cortner@tru.ca .

1. Other measures include the Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5; Blevins et al., 2015), emotion regulation flexibility (FlexER-10; Dorfel et al., in preparation), Pearlin Mastery Scale (Pearlin & Schooler, 1978), Up-regulation of positive emotions (Livingstone & Srivastava, 2012), the Emotion Regulation Questionnaire - Expressive suppression (ERQ-suppression; Gross & John, 2003), the Emotion Beliefs Questionnaire (EBQ; Becerra et al., 2020) [↑](#footnote-ref-1)