

**The Effects of Offenders' Feelings of Guilt and Shame on Their Willingness to
Participate in Digital VOM**

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Abstract

The present study investigated the effects of offenders' feelings of guilt and shame in predicting their willingness to participate in (digital) victim-offender mediation (VOM). Specifically, it was hypothesised that guilt and shame positively predict the offenders' willingness to participate in digital VOM methods like video messages, digital video chat and in the traditional VOM method of letter exchange. Also, it was hypothesised that guilt and shame negatively predict the willingness to participate in face-to-face VOM. A quantitative study was conducted using an online questionnaire. Participants (N= 49) were asked to imagine being an offender of a given burglary crime situation. The four different VOM methods (face-to-face, letter exchange, video messages and digital video chat) were chosen for this research to have two similar forms of VOM, in traditional versions as well as in digital versions. These four methods were then explained to the participants. Afterwards, they had to answer questions regarding their feelings of guilt and shame and their willingness to participate in each of these methods. The key findings of this research were that guilt and shame positively predicted the willingness to participate in digital VOM. However, no effect of guilt and shame on the willingness to participate in letter exchange was found. Therefore, these hypotheses could not be completely confirmed. Additionally, no negative effect was found for guilt and shame on the willingness to participate in face-to-face VOM, which results in the rejection of these hypotheses. An unexpected finding was that a significant positive effect of shame as a predictor for the willingness to participate in Face-to-Face VOM was found. These findings give new insight into the offenders' willingness to participate in digital VOM methods and reveal that offenders' with high feelings of shame and guilt have a high willingness to participate in digital VOM methods. It can be suggested that it is important to consider digital VOM methods as an alternative, if traditional VOM is not possible or wanted, for offenders who experience high levels of guilt and shame. This could ensure effective treatment and the reduction of re-offences.

Keywords: Digital Victim-Offender-Mediation, Guilt, Shame, Willingness to participate, Offenders

The Effects of Offenders' Feelings of Guilt and Shame on Their Willingness to Participate in Digital VOM

What about crime in Europe? Research shows that there has been a general drop in many common crimes in Western countries since the early 1990s (Farrell et al., 2014). However, the drop does not reduce the prison population (Gazal-Ayal & Roberts, 2019, as cited in, Peleg-Koriat & Weimann-Saks, 2021). Generally, getting in touch with a crime can happen to everybody. Research shows that not only victims but also offenders are affected by the consequences of their crimes which is often shown by experiencing feelings of guilt and shame (Tangney et al., 2011). While guilt typically includes remorse, tension and regret, feelings of shame often involve thoughts of being worthless or exposed (Tangney et al., 2014).

Interestingly, these two feelings lead to different kinds of behaviours. Whereas guilt motivates reparative actions, people who experience shame can become more defensive by trying to escape or hide (Tangney et al., 2014). Additionally, the Reintegrative Shaming Theory (RST) made a distinction between the self and behaviour and differentiates between two different forms of shame. "Disintegrative shaming" includes practices that are focusing on the individual, and "reintegrative shaming" identifies the crime itself, the behaviour as wrong (Tagney et al., 2011). The "reintegrative shaming" form can also motivate reparative action and offers the person a chance to get back into society, whereas "disintegrative shaming" isolates and punishes the person (Tagney et al., 2011). Several methods exist that focus on handling offender treatment, especially alternative methods that have been introduced by law enforcement and social supervision in recent decades (Peleg-Koriat & Weimann-Saks, 2021). Restorative justice is a way of examining a specific conflict or crime with the method of actively involving all corresponding parties of it, namely the victim, the offender, and the community (Surva, 2022). Victim Offender Mediation (VOM) is one form of restorative justice. It is defined as a process in which victims and offenders of a crime come together in a safe setting to talk about the impact, wrongdoing, and possibilities to make amends (Hansen & Umbreit, 2018) with the assistance of a trained mediator (Umbreit, 2002).

Moreover, "VOM is the most common, most researched, and most widespread form of formal restorative justice practice in juvenile and criminal justice systems around the world", according to Umbreit & Armour (2011, as cited in Hansen & Umbreit, 2018, p.101). The most common direct way of VOM is face-to-face (FTF) mediation, and the most used indirect ways to practice VOM are letter exchange and shuttle mediation, in which the mediator relays the messages between the parties to communicate, depending on the preference and needs of the

participants (Jonas-van Dijk et al., 2020). Due to the increase in global communication networks (Bonensteffen et al., 2022) and due to the Covid-pandemic, the option to converse in an online way became more into focus because it enables a more flexible and independent style of communication. Known digital VOM practices are video messages or digital video chat (Bonensteffen et al., 2022). Digital VOM has been shown to generate higher feelings of environmental safety for the victims because the offender does not need to be physically present, which is often perceived as stressful (Bonensteffen et al., 2022).

Furthermore, digital methods of VOM are easier to conduct in an online setting and have, therefore, the advantage of needing less organisation and preparation (Bonensteffen et al., 2022). However, indirect contact during digital VOM has not only advantages, but there is the risk of hindering the establishment of rich and fluent communication between the two parties. Another challenge is the absence of communicative body cues, which can result in misunderstandings (Bonensteffen et al., 2022).

Unfortunately, although many studies focus on shame and guilt, it is uncommon for criminological studies to focus on these feelings, leading to a research gap (Svensson et al., 2013). Also, little research focuses on helping offenders cope with their wrongdoings and needs (O'Hear, 2006, as cited in, Peleg-Koriat & Weimann-Saks, 2021). Since there is currently not much known about the offender's willingness to participate in digital VOM and the role of feelings and guilt in the decision-making process to engage in digital VOM, this research is aimed at answering the central question: *How do feelings of shame and guilt influence the offenders' willingness to participate in digital VOM methods?* It is important to gain insight into the influence of feelings of shame and guilt on the willingness to participate, because these feelings can serve as motivators for prosocial behaviour, and if these feelings influence the willingness to participate in digital VOM, re-offences can be reduced due to an effective treatment method of offenders', if traditional VOM is not wanted or possible due to several reasons.

In the following, restorative justice and VOM will be defined in more detail. After that, the reasons why offenders might agree or disagree to participate in VOM will be explained, with a following specific focus on offenders' feelings of shame and guilt. Then, the current traditional VOM methods will be explained in more detail. Lastly, the digital VOM methods of video messages and online video chat will be explored.

Restorative Justice and VOM

It is commonly known that crimes have negative consequences on the victims but can also have some negative effects like feelings of shame or guilt (Tagney et al., 2011) on the offender. To repair the harm and negative impact that resulted from the crime, restorative justice can help. Restorative justice is a way of examining a specific conflict or crime with the method of actively involving all corresponding parties of it, namely the victim, the offender, and the community (Surva, 2022). During specific restorative justice programs, the involved parties get the opportunity to talk to each other in a mediated dialogue to better deal with the consequences of the crime (Umbreit, 1998). A famous goal of restorative justice is to mediate a conflict-solving process between victims and offenders (Bonensteffen et al., 2022). Interestingly, research revealed that offenders rated restorative justice programs as more satisfying than the traditional criminal justice system, without restorative justice (Jonas-van Dijk et al., 2020). One of the most established forms of restorative justice is VOM. Additionally, studies revealed that the participation in VOM results in lower re-offending rates (Jonas-van Dijk et al., 2020). However, several factors can influence the offender's willingness to participate in a VOM.

Reasons why Offenders agree or do not agree to VOM

First, cleaning their criminal record, impressing the court, and avoiding jail are reasons why offenders are motivated to participate in VOM sessions (Hansen & Umbreit, 2018). Also, they want to move on with their lives and additionally want to help the victims to move on with their lives. Offenders sometimes even feel the need to explain to the victims why they did the crime and to apologise to them (Hansen & Umbreit, 2018), which is often related to overcoming feelings of shame and guilt (Tangney et al., 2011). Furthermore, participating in VOM can help offenders better deal with their feelings and understand the victims' feelings (towards them). Next to that, the offenders' needs to have a fair and safe communication process, correct their own mistakes, and apologise, can be met during VOM sessions, which is why offenders could potentially agree to VOM. Moreover, participation in VOM results in better reintegration into society. It lowers the labelling of the offender because society sees that the offender is willing to take responsibility for his actions (Jonas-van Dijk et al., 2020) which is in favour for the offender.

However, sometimes offenders do not see their participation in VOM as voluntary. Some studies showed that victims often dominated the discussion and tried to lecture the offenders. This can have the consequence that offenders may feel forced to agree to a compromise they do not entirely agree with (Hansen & Umbreit, 2018). A lack of knowledge

about the whole mediation process can also be a reason for offenders to deny their participation in VOM (Hansen & Umbreit, 2018). Focusing on offenders' feelings can help to understand their impact on their willingness to participate in VOM.

Offenders' Feelings After Crime

Several feelings can be evoked in offenders after committing a crime. Some may feel worthless and exposed, and others feel tense (Tangney et al., 2011). Especially shame and guilt have been presumed to be the most central moral emotions (Elster, 1999, as cited in Svensson et al., 2013). This research paper focuses on these two emotions because they are essential for rehabilitation (Tangney et al., 2011). The reason why these two feelings are defined as 'moral' emotions is because of their supposed influence in encouraging acts of kindness and discouraging antisocial behaviours. Therefore, they offer promising opportunities for interventions with people that have committed offences (Tangney et al., 2011). Regarding the prevalence of these two emotions, it can be said that studies showed only a rare experience of offenders' shame and guilt after a crime. Also, shame and guilt occur more often in older than in younger generations, which could also relate to the fact that these two feelings are generally rare in modern society (Hosser, 2008).

Feelings of Shame

One of the most important, painful, and intensive emotions is shame (Elster, 1999, as cited in Svensson et al., 2013). Shame is a very painful and disruptive emotion because it includes judging not only one's behaviour but also the self (Tangney et al., 2011). Consequences of feeling shame about oneself can be the feeling of being "nothing", worthless or powerless. Furthermore, people also feel exposed to how their incorrect self appears to others, meaning that regardless of whether an actual observing audience is present, people who feel shame imagine how their defective self appears to others (Tangney et al., 2011). Interestingly, offenders who experience shame often have the behavioural tendency to hide, deny or even escape the situation that induces their feelings of shame. Furthermore, shame can impede empathic connectedness with other persons. On top of that, studies found a positive correlation between shame and anger and hostility towards others (Tangney et al., 2011). However, new insights reveal that shame can also promote pro-social behaviours in form of helping and apologizing (Tangney et al, 2014, as cited in Gausel et al., 2016). It is argued that shame has two faces, a defensive pathway, including the externalization of blame, as well as a prosocial pathway (Tangney et al., 2014). This distinction can also be found in the RST which makes a distinction between the self and behaviour (Tagney et al., 2011).. Hereby, the defensive pathway of shame is defined as "disintegrative shaming" which includes

practices that are focusing on the individual, and the prosocial pathway that can be found within the “reintegrative shaming” which identifies the crime itself, the behaviour as wrong (Tangney et al., 2011). “Disintegrative shaming” has the consequence of the offender being isolated and humiliated by the society, with the aim to punish the offender. In contrast to that, “reintegrative shaming” only criticizes the offenders’ behaviour but not the offender himself. Here, the offender is treated with respect and gets the chance to get back into society by repairing their criminal action (Tagney et al., 2011) which leads to apologizing and helping behavioural tendencies in offenders. Furthermore, it is expected that the offender gets the experience to reintegrate within restorative justice programs, instead of being labelled (Jonas-van Dijk et al., 2022).

Feelings of Guilt

Guilt is often experienced as less overwhelming because a specific behaviour is in the centre that is perceived as not directly connected to the self (Svensson et al., 2013). When experiencing guilt, the offender himself sets his focus predominantly on his behaviour and not himself. People consider their behaviour, including its consequences, instead of defending the self. Feelings of remorse and regret are strongly connected with feelings of guilt. When people experience guilt, they ruminate over their misbehaviour, wishing they had behaved differently and want to make amends (Tangney et al., 2011). Looking at behavioural tendencies, people who experience guilt are often motivated by actions to repair their misbehaviour. Also, guilt positively relates to other-oriented empathy and responsibility-taking (Tangney et al., 2011). In contrast to shame, feelings of guilt seem to be more adaptive and less disruptive (Tangney et al., 2011). Guilt has also been found to negatively related to reoffending (Svensson et al., 2013).

In sum, shame and guilt are prominent feelings that offenders experience after committing a crime. However, shame and guilt induce different kinds of behaviours. In contrast, shame leads to hiding tendencies, and guilt increases actions of apologising (Tangney et al., 2011), which is the reason why these two feelings are separated in this research. It needs to be researched if the differences in behavioural tendencies and ways to deal with the feelings of shame and guilt also result in differences in the preferred form of VOM in which offenders are willing to participate.

Existing (traditional) Forms of VOM

Whereas FTF mediation is a direct form of VOM, letter exchange and shuttle mediation enable both parties to communicate without meeting directly (Jonas-van Dijk et al., 2020). Focusing on these three different communication methods, the richness approach

mentioned that every communication form differs in its richness. Richness is based on the ability of specific communication channels to enable synchronicity and visual as well as verbal information exchange (Swaab et al., 2012). Therefore, it is argued that the ability of a communication channel to convey visual or vocal channels and provide feedback rapidly with synchronous communication enables the building of rapport and information exchange between the affected parties (Swaab et al., 2012).

FTF mediation offers the most cues and direct feedback and can be seen as the wealthiest form of mediation (Swaab et al., 2012). Also, FTF mediation is dialogue-driven with both parties directly communicating and listening to each other, with an authentic and nondirective mediator (Hansen & Umbreit, 2018). It is a synchronous communication channel because it is possible to get and give immediate feedback. Furthermore, it enables facial expressions, non-verbal behaviour and the sound of a voice which make a conversation more accessible, as it limits misinterpretations (Swaab et al., 2012). However, FTF mediation and the physical closeness to the other party can be perceived as too stressful and confronting for victims and offenders (Bonensteffen et al., 2022). This could potentially be the case for offenders who experience shame about their crime and tend to hide from direct contact.

During letter exchange, there is no possibility of receiving immediate feedback (Swaab et al., 2012), which makes it an asynchronous communication channel. Due to few existing communication cues, misinterpretations are also more likely during letter exchange. However, it offers more perceived distance to the other party than FTF VOM. This can be a suitable method for offenders who are not confident about being physically close to the victim. Especially, letter exchange can be advantageous for offenders with high feelings of shame as they prefer to avoid stressful contact with the other party and for shame-prone offenders because they can still offer an apology to the victim.

Focusing on shuttle mediation, during which a mediator passes on the information between the offender and victim, it can be said that it is also an asynchronous method, which therefore also increases the chance of misinterpretations (Swaab et al., 2012) due to the limited amount of cues. However, due to the growing prominence of digital methods, some digital forms of VOM need to be explained in more detail.

Digital VOM in the form of video messages, digital video chat

There are indirect ways of digital VOM, such as video messages or writing emails, and direct ways, such as digital video chat or voice calls. One significant advantage of using digital VOM is that it is easier accessible and more flexible for victims and offenders, especially if they are far apart. Also, because the victim and the offender do not meet

physically and therefore are somehow distant from each other, a feeling of control and safety (Bonensteffen et al., 2022) can be established. Offenders who experience guilt and shame can perceive this as an advantage because they can apologise for their wrongdoings and hide in a safe setting.

However, the use of digital VOM methods can also have risks. Technical issues like internet connection troubles can inhibit the conversational flow (Bonensteffen et al., 2022). Also, offenders and victims can have concerns regarding their privacy and safety because it is hard to ensure that nobody records the meeting without permission or that other non-involved parties listen to the conversation (Bonensteffen, 2022, as cited in Tomlin, 2021). Digital video chat is the most similar form to traditional FTF VOM and can be of advantage if traditional VOM is not desired or if indirect VOM methods do not seem fitting and satisfying to the participants (Tomlin, 2021). Next to digital video chat, video messages as a digital method of VOM is also a common method. It includes aspects of shuttle mediation as well as letter exchange. When using video messages, one party records a video message, which will then be delivered to the other party (Meeners, 2020). Of advantage here is the fact that the recorded video message can be re-watched by the other person as often as the person wants to (Meeners, 2020), which, next to the aspect of more visual and auditory cues that are available here in comparison to letter exchange, helps the receiving person to better understand and perceive emotions of the other party (Swaab et al., 2012). Also, the video messages can be recorded and re-watched in an environment chosen by every party, which helps reduce stress. However, it is still a non-synchronous communication method because there is no opportunity to offer immediate feedback or react to questions, which can still lead to misinterpretations (Swaab et al., 2012).

Interestingly, the digital VOM method of online video chat has already been applied during the covid pandemic, where it has been an essential facilitation in offering VOM (Tomlin, 2021). Unfortunately, even though this digital means of VOM developed a high importance, only a little research has been conducted on the use of this method, as well as on other digital VOM methods like video messages. Therefore, the question whether digital VOM can be an effective alternative to traditional VOM methods needs to be analysed in the following research. Reasons for analysing the effectiveness of digital VOM methods are that traditional VOM methods need more preparation and organisation in contrast to digital VOM methods (Bonensteffen et al., 2022). Furthermore, there may be situations in which parties do not want to be close to each other and prefer more digital and indirect ways to communicate.

In sum, because offenders' do experience feelings of shame and guilt after a crime, and these feelings lead to differences in their behavioural tendencies, it is expected that there will also be differences in the willingness to participate in different forms of VOM. Digital forms of VOM and the indirect method of letter exchange offer some distance between both parties and still give the offender a chance to apologise for their crimes which looks suitable for shame and guilt-prone individuals. The direct FTF VOM, on the contrary, can be perceived as too stressful by offenders with feelings of guilt and shame. This research focuses on the four different VOM methods (face-to-face, letter exchange, video messages and digital video chat) as they are similar but conducted in different settings, in traditional versions as well as in digital versions. Therefore, it is expected that:

High levels of guilt positively predict the offenders' willingness to participate in digital VOM methods like video messages or online chat and the non-directive method of letter exchange (H₁).

High levels of guilt negatively predict the offenders' willingness to participate in FTF VOM (H₂).

High levels of shame positively predict the offenders' willingness to participate in digital VOM methods like video messages or online chat and the non-directive method of letter exchange (H₃).

High levels of shame negatively predict the offenders' willingness to participate in FTF VOM (H₄).

Methods

Design

The whole study used the 2x2 mixed factors research design, having the between-subject factor of either the offender or the victim condition, and various within-factors like the willingness to participate or feelings of shame and guilt. Because this research was a collaborative project, some conditions and variables were not specifically relevant to the present study and the focus of this research is on a correlational factor design. Only the offender's condition is relevant for this research, which has the within-subject factors of the willingness to participate in various forms of VOM and feelings of shame and guilt. To determine the relationship between offenders' levels of shame and guilt and their willingness to participate in different kinds of VOM, there are four dependent variables, namely the willingness to participate in FTF, letter exchange, video messages and digital video chat and two independent variables, namely offenders' feelings of guilt and shame.

Participants

Requirements for participation in this study were that people were at least 18 years old, students and had sufficient English skills. Participants have been recruited via social media channels (Facebook, Instagram, WhatsApp), Sona-system of the University of Twente and the website pollpool.com. The participants were randomly assigned to one out of the two conditions, either the offender or the victim role. The overall response rate was 224 participants. However, 175 participants had to be excluded from this research. Reasons for exclusion were that people did not belong to the offender condition, meaning either to the victim condition (N=95) or to no condition (N=37) due to dropping out early. Participants that were assigned to the offender condition but did not answer the relevant questions for this research and thus dropped out (N=43) were also excluded. All participants from the victim conditions must be excluded from this research because this study is only interested in the offender's condition. After removing these 175 participants from the data file, 49 students remained who filled out the questionnaire, having an age range from 18 to 60 ($M = 24.92$, $SD = 8.386$). Regarding the demographics, the participants consisted of 76% (N=37) females and 24% (N=12) males. 67% (N=33) of the participants were German, 6% were Mexican (N=3), another 6% were Dutch (N=3), 4% were Israeli (N=2), and another 4% were Ukrainian (N=2). For each of the following nationalities, one participant (2%) was Canadian, Japanese, Polish, Russian, Moldovan, and British. Most participants had a secondary education (N=25, 51%), 30% had a bachelor's degree (N=15), two participants had a master's degree (4%), and one person indicated primary education as the highest level of education (2%). Six

participants answered that they had another educational level as the given options that were mentioned, namely two persons had an A level (4%), two persons a “Staatsexamen” (State Exam) (4 %), one person a college degree (2%) and one person an “Ausbildung” (Professional education) (2%). Regarding the employment status of the participants, it can be said that 77.55% were students (N=38), 16% were employed (N=8), 4% indicated ‘other’ as an option (N=2) and one person was self-employed (2%). The present study has been approved by the BMS ethics committee at the University of Twente (approval number: 230363).

Procedure

First, participants were informed about the whole study, and they were asked to give their consent via Qualtrics. However, the participants were not fully informed about the true purpose of the study. Also, all participants had to answer some questions regarding their demographics. Afterwards, the participants were randomly allocated to either the offender or the victim condition.

Description Offender Condition

All participants that were randomly assigned to the Offender condition and not to the Victim condition were informed about VOM in general. Afterwards, the participants were asked to imagine themselves as offenders in a given crime situation. The situation described a person who suffered from drug addiction, and to make enough money to buy drugs, the person broke into a house and stole several valuable items. Next, the participants had to answer some questions with the given situation as an offender in mind. Specifically, they were asked to indicate their feelings of guilt and shame on a 5-point Likert scale, for instance, “I feel remorse, regret”. Then, they got a short introductory text in which every four of the VOM methods was explained (see Appendix). Afterwards, the participants had to indicate their willingness to participate for each of the four different forms of VOM: FTF VOM, letter exchange, video messages and online video chat. It is important to add that the four forms of VOM and their related willingness were asked simultaneously, meaning that the hypotheses assess the preferences of the four specific VOM methods. The following procedure included in the offender condition was not relevant to the current research ¹.

¹. The participants had to watch two videos. One video included a digital VOM, and the other showed an FTF VOM session. A randomiser was included that determined which video was shown first, and the participants received, before every video, instructions about what was going to happen in the following video. Other variables included in the offender condition but non-relevant for this study were asked questions regarding the offenders’ cooperativeness towards the victim and their emotions and different questions about their outcome satisfaction.

After completing their assigned condition, the participants were asked to answer questions regarding their experiences during the study, especially they were asked how honest they answered the questions and how well they could imagine themselves in the given situation. Also, the participants were asked if they or one of their relatives and friends ever committed a crime or was a victim of a crime. In the end, participants gave a second informed consent. Overall, the survey took the participants 20-30 minutes to complete.

Independent variables

Offenders' Feelings of Shame and Guilt

The State Shame and Guilt Scale (SSGS) of Marschall et al. (1994) was used to measure the independent variables of the offender's feelings of shame and guilt, using a 5-point Likert scale (see Appendix). The SSGS consists of ten items, with five items belonging to the shame subscale and five items belonging to the subscale of guilt. Item 1,3,5,7 and 9 belong to the subscale of shame and item 2,4,6,8 and 10 belong to the subscale of guilt. An example of the guilt subscale item is "I feel remorse, regret", and the shame subscale consisted of items like "I feel like I am a bad Person". All items were phrased like the original scale and scored in a positive direction. Therefore, items on the scale were averaged, and a high score on one of the subscales indicates a high level of guilt or shame. Factor analysis showed that all items/each subscale had only one factor, indicating the construct validity of that measurement. This means that each subscale, shame and guilt, measures its fitting construct, and no more underlying factors are possibly measured within this construct. The reliability analysis for the shame subscale showed a Cronbach's alpha of .79, indicating good reliability. Also, all five items of the Shame subscale can be left in because Cronbach's alpha does not increase when taking out one item. The subscale of guilt also showed good reliability having a Cronbach's alpha of .92. In the shame subscale, all five items of the guilt subscale can be left in because dropping one item would mean that the overall alpha of the subscale decreases.

Dependent Variables

Willingness to Participate Scale by Meeners (2020)

To measure the dependent variables of the offenders' willingness to participate in the four different forms of VOM, a scale from a past study has been adapted. Initially, the scale by Meeners (2020) also consisted of four items. However, the last item, "I do not want to continue communication", has been excluded from this study as this research focuses only on the comparison and preferences between the four given VOM methods, but a new item "I would like to exchange letters", was added. Regarding the other items, only the wording has

been changed slightly. In the original study, Cronbach's alpha was .65. However, Cronbach's alpha in this research study did not show high reliability ($\alpha.33$). The items were measured on a 5-point Likert scale, ranging from strongly disagree to strongly agree. The offender's willingness to participate was administered once after the description of the crime situation. It included the willingness for the following four forms of VOM: FTF VOM, letter exchange, video messages and online video chat.

Data Analysis

In order to answer the hypotheses of this research, statistical analyses were conducted with the software R Studio using the packages "stats", "car", "psych" and "tidyverse" which includes a collection of several packages like "ggplot2", "dplyr" and "tidyr". Prior to the analysis, the data needed to be cleaned and filtered. This was done by removing the start date, end date, status, progress, completion status, duration, recorded date, response id, distribution channel as well as user language. Also, participants of the victim condition needed to be excluded. An overview of the data was provided with the use of descriptive statistics, summarising the demographics in means, standard deviations, and frequencies. Scale reliability was determined with the calculation of Cronbach's alpha, and a (confirmatory) factor analysis ensured scale validity. After that, the dataset was checked for the five assumptions of linearity, normality, independence, and homoscedasticity. Then, mean scores and standard deviations were calculated for the final variables. To investigate the relationships between the variables, a Pearson correlation was conducted and the statistical significance of the correlation coefficient was assessed using a t-test. In order to test the hypotheses, several linear regression analyses were conducted with feelings of guilt and feelings of shame as an individual predictor on the willingness to participate in the several VOM forms. To control for the effects of demographics, age, gender and education were added as covariates. Lastly, the effect of using guilt and shame together as two predictors in the same regression analysis was analysed.

Results

Overview of the data – Correlations and Descriptive statistics

To gain a better overview of the data, descriptive statistics were used to gain mean scores and standard deviations of all variables. The overall level of feelings of guilt had an average scale score of 3.68 and the average scale score of feelings of shame was 3.5.

Focusing on the willingness to participate in the four different kinds of VOM, the highest mean scores of willingness were found in FTF mediation ($M=3.27$, $SD=1.15$) and letter exchange ($M=3.27$, $SD=1.35$). Then the willingness mean of online video chat follows ($M=3.06$, $SD=1.21$), and the mean score of the willingness to participate in video messages ($M=2.88$, $SD=1.35$). There were no significant differences found between the mean scores, which suggests that the participants' willingness did not significantly vary across the different forms of VOM. All mean scores indicate a neutral level of the willingness to participate in the various forms of VOM.

Table 1 shows the correlations, as well as mean scores and the SD of all measurements that were used. *Feelings of guilt* had a significant positive correlation with the *Willingness to participate in video messages*, $r(47) = .32$, $p < .05$. Also, *Feelings of guilt* showed a significant positive correlation with the *Willingness to participate in online video chat*, $r(47) = .33$, $p < .05$. However, the correlation analysis indicated no significant correlation between *feelings of guilt* and the *willingness to participate in an FTF mediation*, $r(47) = .21$, $p = .15$, and between *feelings of guilt* and the *willingness to participate in letter exchange*, $r(47) = .22$, $p = .12$. Moreover, the offender's *feelings of shame* showed a significant correlation with the *willingness to participate in an FTF mediation*, $r(47) = .32$, $p < .05$. Next to that, a correlation analysis indicated that *feelings of shame* were significantly positively correlated with the offender's *willingness to participate in video messages*, $r(47) = .29$, $p < .05$. Furthermore, *feelings of shame* also had a significant correlation with the *willingness to participate in online video chat*, $r(47) = .29$, $p < .05$. There was no significant correlation found between *feelings of shame* and the *willingness to participate in letter exchange*, $r(47) = .03$, $p = .81$). Generally, the strongest significant correlation was identified between *feelings of guilt* and the *willingness to participate in online video chat*.

Focusing on the correlations of the demographic variables of *Age* and *Gender*, none of these correlations reached statistical significance. This indicates that there are no significant associations among these variables.

Table 1

Descriptive of main variables and demographic variables, including their correlations (Pearson's correlation coefficient)

	N	M	SD	1	2	3	4	5	6	7	8
1. Offender's feelings of guilt	49	3.68	.56	-							
2. Offender's feelings of shame	49	3.50	.83	.80	-						
3. Willingness to participate in face-to-face mediation	49	3.27	1.50	.21	.32*	-					
4. Willingness to participate in video messages	49	2.88	1.35	.32*	.29*	-.07	-				
5. Willingness to participate in online video chat	49	3.06	1.21	.33*	.29*	.14	.37	-			
6. Willingness to participate in Letter exchange	49	3.27	1.35	.22	.03	-.34	.46	.04	-		
7. Gender	49	-	-	.21	.06	-.16	.05	-.01	.11	-	
8. Age	49	24.92	8.39	-.13	-.1	-.01	-.26	.02	-.08	-.10	-

Note. Variables 1. to 6. were measured on a 5-point Likert scale. Gender was coded with 1 = male and 2= female.

* $p < .05$

Hypothesis testing

Feelings of Guilt and offenders' willingness to participate in letter exchange, video messages or online chat.

It was predicted that high levels of guilt positively predict the offenders' willingness to participate in (digital) VOM methods like video messages or online chat and the non-directive method of letter exchange (H₁). To test this hypothesis, a linear regression analysis was conducted with the *offenders' feelings of guilt* as the main predictor variable and the *offenders' willingness to participate* in different forms of VOM as the dependent variable. The demographic variables of age, gender and education were included as covariates.

To test the first hypothesis, the *willingness to participate in letter exchange* was used as the dependent variable in the linear regression analysis *feelings of guilt*. However, no significant relationship was found between guilt and willingness to participate in letter exchange, $R^2 = .06$, $F(4,44) = .68$, $p = .179$. This suggests that the offenders' feelings of guilt are no significant predictor of their willingness to participate in a letter exchange. After controlling for demographic variables, the covariates of age and education were also found to be non-significant (see Table 4).

Next, in the initial regression analysis with *guilt* as the only predictor on the *willingness to participate in video messages*, guilt significantly predicted the willingness to participate in video messages, $R^2 = .10$, $F(1,47) = 5.20$, $p = .027$. This suggests that offenders' feelings of guilt are a significant predictor of their willingness to participate in video messages. However, when age, gender and education were added as covariates in the subsequent regression analysis, the effect of guilt on willingness was no longer significant, $R^2 = .15$, $F(4,44) = 1.92$, $p = .057$. This suggests that the relationship between guilt and willingness may have been confounded by age, gender, and education. Controlling for these demographic factors diminished the association between guilt and willingness. The covariates of age, gender and education did not show any significant effects on the willingness to participate in video messages (see Table 3).

The analysis where *offenders' feelings of guilt* was entered as the main predictor variable, with gender, age and education as covariates, and the offender's *willingness to participate in online video chat* as the dependent variable also indicated a significant relationship between high levels of guilt and the offenders' willingness to participate in online video chat, $R^2 = .14$, $F(4,44) = 1.79$, $p = .033$. This result shows that the offenders' guilt is also a significant predictor of the willingness to participate in online video chat. The demographic

covariates of age, gender, and education did not show an individual significant effect (see Table 2).

Even though feelings of guilt have been found to be a positive predictor for the offenders' willingness to participate in video messages and online video chat, the first hypothesis could only be partially confirmed. The reason for that is the result of the non-significant relationship between feelings of guilt and willingness to participate in a letter exchange.

Feelings of Guilt and offenders' willingness to participate in FTF VOM

It was assumed that higher levels of guilt negatively predict the offender's willingness to participate in FTF VOM (H₂). To test that, a linear regression analysis was conducted with the *willingness to participate in FTF mediation* as the dependent variable and the offender's *feelings of guilt* was entered as the main predictor variable, while age, gender and education were included as covariates (see Table 5). However, the analysis showed a non-significant relationship between feelings of guilt and willingness to participate in FTF VOM, $R^2 = .12$, $F(4,44) = 1.52$, $p = .054$. This indicates that feelings of guilt do not significantly negatively predict the offender's willingness to participate in FTF meetings. These results are not in support of the second hypothesis. After controlling for demographic variables, the covariate of age was found to be non-significant, indicating that age did not have a significant effect on the willingness to participate in FTF. Similarly, gender and education did not show significant associations with the willingness to participate in FTF when controlling for guilt and other covariates (see Table 5).

Table 2

Regression Model for the Effect of Offenders' Feelings of Guilt, Age, Gender and Education on the Willingness to Participate in online video chat

Variable (Predictor)	Estimate	SE	t	p	95% CI
Feelings of Guilt	.07	.03	2.20	.033*	[.006, .136]
Age	-.01	.06	-.12	.907	[-.125, .111]
Gender	-.25	.40	-.61	.545	[-1.054, .564]
Education	.09	.08	1.09	.283	[-.079, .263]

Note. $F(4,44)=1.79, p>.05, R^2=.14, *p<.05$

Table 3

Regression Model for the Effect of Offenders' Feelings of Guilt, Age, Gender and Education on the Willingness to Participate in video messages

Variable (Predictor)	Estimate	SE	t	p	95% CI
Feelings of Guilt	.07	.04	1.96	.057	[-.002, .142]
Age	-.10	.06	-1.51	.137	[-.229, .032]
Gender	-.10	.44	-.22	.828	[-.991, .797]
Education	.02	.09	.26	.794	[-.164, .213]

Note. $F(4,44)=1.92, p>.05, R^2=.15$

Table 4

Regression Model for the Effect of Offenders' Feelings of Guilt, Age, Gender and Education on the Willingness to Participate in letter exchange

Variable (Predictor)	Estimate	SE	<i>t</i>	<i>p</i>	95% CI
Feelings of Guilt	.05	.04	1.37	.179	[-.024, .128]
Age	-.01	.07	-.21	.837	[-.152, .123]
Gender	.20	.47	.44	.663	[-.737, 1.147]
Education	-.02	.10	-.21	.839	[-.219, .179]

Note. $F(4,44)=.68, p>.05, R^2=.06$

Table 5

Regression Model for the Effect of Offenders' Feelings of Guilt, Age, Gender and Education on the Willingness to Participate in FTF

Variable (Predictor)	Estimate	SE	<i>t</i>	<i>p</i>	95% CI
Feelings of Guilt	.06	.03	1.98	.054	[-.001, .124]
Age	.03	.06	.61	.545	[-.079, .147]
Gender	-.54	.38	-1.41	.164	[-1.329, .231]
Education	-.10	.08	-1.29	.203	[-.268, .059]

Note. $F(4,44)=1.52, p>.05, R^2=.12$

Feelings of Shame and offenders' willingness to participate in letter exchange, video messages or online chat.

It was predicted that high levels of shame positively predict the offenders' willingness to participate in different forms of VOM using letter exchange, video messages, or online video chat (H₃). To test this hypothesis, linear regression analysis was conducted with the several forms of willingness to participate as the dependent variable and the level of shame as the independent variable.

A significant effect of *shame* on *willingness to participate in online video chat*, $R^2 = .13$, $F(4,44) = 1.62$, $p = .047$, was observed. This implies that offenders who reported a higher level of shame were more willing to participate in online video chat. After controlling for the demographic variables, the covariates of gender and education showed no significant associations with the willingness to participate in online video chat (see Table 6).

In the initial linear regression with *shame* as the only predictor on the *willingness to participate in video messages*, shame was found to significantly predict the willingness to participate in video messages, $R^2 = .08$, $F(1,47) = 4.29$, $p = .043$. This suggests that offenders' feelings of shame are a significant predictor of their willingness to participate in video messages. However, when age, gender and education were added as covariates in the subsequent regression analysis, the effect of shame on the willingness to participate in video messages was no longer significant, $R^2 = .14$, $F(4,44) = 1.83$, $p = .069$. This suggests that the relationship between shame and willingness may have been confounded by age, gender, and education. Controlling for these demographic factors diminished the association between shame and the willingness to participate in video messages. The covariates of age, gender and education did not show any significant effects on willingness to participate in video messages (see Table 7).

However, when using the *willingness to participate in letter exchange* as the dependent variable and *feelings of shame* as the main predictor variable, while including gender, age and education as covariates, the linear regression analysis indicated a non-significant relationship, $R^2 = .02$, $F(4,44) = .21$, $p = .891$. This shows that the offenders' feelings of shame are no significant predictor of their willingness to participate in a letter exchange. No significant effect for the covariates of age, gender and education was found when controlling for demographics (see Table 8).

The third hypothesis can only be partially supported because shame was found to be a positive predictor for the willingness to participate in video messages and online video chat but not for the willingness to participate in a letter exchange.

Feelings of Shame and offenders' willingness to participate in FTF VOM

It was assumed that shame negatively predicts the offenders' willingness to participate in FTF VOM (H4). A linear regression analysis was conducted to test this, with the independent variable of *Feelings of Shame* as the main predictor and the dependent variable of *willingness to participate in FTF meetings*. The demographic variables of gender, age and education were included as covariates (see Table 9). Results indicated a significant positive relationship between feelings of shame and the willingness to participate in FTF, $R^2 = 0.15$, $F(4,44) = 2.01$, $p = .020$. However, this hypothesis needs to be rejected because the relationship that was found was positive, not negative, meaning that high levels of shame positively predict the offenders' willingness to participate in FTF VOM. The controlling of the demographics of age, gender and education revealed no significant effect on the willingness to participate in FTF (see Table 9).

Table 6

Regression Model for the Effect of Offenders' Feelings of Shame, Age, Gender and Education on the Willingness to Participate in online video chat

Variable (Predictor)	Estimate	SE	<i>t</i>	<i>p</i>	95% CI
Feelings of Shame	.08	.04	2.04	.047*	[.001, .150]
Age	-.02	.06	-.32	.750	[-.136, .099]
Gender	-.12	.40	-.29	.772	[-.916, .684]
Education	.12	.08	1.42	.164	[-.050, .288]

Note. $F(4,44)=1.62$, $p > .05$, $R^2=.13$, * $p < .05$

Table 7

Regression Model for the Effect of Offenders' Feelings of Shame, Age, Gender and Education on the Willingness to Participate in video messages

Variable (Predictor)	Estimate	SE	<i>t</i>	<i>p</i>	95% CI
Feelings of Shame	.08	.04	1.87	.069	[-.006, .158]
Age	-.11	.06	-1.70	.096	[-.239, .020]
Gender	.03	.44	.07	.947	[-.852, .911]
Education	.05	.09	.55	.586	[-.136, .237]

Note. $F(4,44)=1.83$, $p > .05$, $R^2=.14$

Table 8

Regression Model for the Effect of Offenders' Feelings of Shame, Age, Gender and Education on the Willingness to Participate in letter exchange.

Variable (Predictor)	Estimate	SE	<i>t</i>	<i>p</i>	95% CI
Feelings of Shame	.01	.04	.14	.891	[-.082, .094]
Age	-.03	.07	-.44	.660	[-.169, .108]
Gender	.32	.47	.69	.492	[-.620, 1.269]
Education	.01	.10	.04	.965	[-.195, .204]

Note. $F(4,44)=.21, p >.05, R^2=.02$

Table 9

Regression Model for the Effect of Offenders' Feelings of Shame, Age, Gender and Education on the Willingness to Participate in FTF

Variable (Predictor)	Estimate	SE	<i>t</i>	<i>p</i>	95% CI
Feelings of Shame	.08	.03	2.41	.020*	[.013, .153]
Age	.03	.05	.50	.623	[-.083, .137]
Gender	-.44	.37	-1.19	.239	[-1.189, .305]
Education	-.08	.08	-1.07	.291	[-.242, .074]

Note. $F(4,44)=2.01, p >.05, R^2=.15, *p<.05$

Testing the Effect of using Shame and Guilt as two separate predictors in one analysis

When conducting a linear regression analysis with the *willingness to participate in FTF* as the dependent variable, and feelings of shame and feelings of guilt together as two separate predictors in the same regression analysis, neither guilt ($B = -.02, p >.05$), nor shame ($B = .10, p >.05$) showed a significant effect. This indicated that the introduction of the second predictor, guilt, diminishes the previously observed significant effect of shame on the willingness to participate in FTF. The presence of guilt as a predictor is therefore accounting for some of the variability in the willingness to participate in FTF, which was previously attributed to shame alone.

In the previously conducted linear regression analyses with *willingness to participate in letter exchange* as the dependent variable and feelings of shame and feelings of guilt as single predictors, neither guilt nor shame found a significant effect on willingness to participate in letter exchange when considered individually. However, when guilt and shame were included as predictors in the same regression model, a significant effect for guilt on the willingness to participate in letter exchange ($B = .13, p = .023$) was observed. This suggests that the relationship between guilt and the willingness to participate in letter exchange is dependent on the presence of shame.

In the individual analyses that were previously conducted, guilt demonstrated a significant effect on the *willingness to participate in video messages*. Also, shame was found to be a significant predictor for the willingness to participate in video messages. However, when guilt and shame were included together as two predictors in the same regression model, neither guilt ($B = -.02, p >.05$), nor shame ($B = .10, p >.05$) showed a significant effect on the willingness to participate in video messages. These results indicate that the presence of both predictors in the same model might interact or have confounding effects on the relationship between guilt, shame, and willingness to participate in video messages.

The same results were found for the *willingness to participate in online video chat*. The inclusion of guilt and shame together as predictors in the same regression model showed no significant effect, neither for guilt ($B = .06, p >.05$), nor for shame ($B = .02, p >.05$), even though the analyses with shame and guilt as separate individual predictors revealed that guilt, as well as shame were found to be positive predictors for the willingness to participate in online video chat. This suggests that the presence of both predictors in the same model might have interaction or confounding effects on the relationship between guilt, shame and the willingness to participate in online video chat.

Discussion

The current study was conducted to gain more knowledge about digital VOM, as the importance of using online methods in the field of VOM, due to factors of the continuously growing digitalisation and the covid pandemic, grows more and more. Also, the focus in this research was on the offenders, their feelings and the influence of those feelings on their willingness to participate in various methods of VOM because most studies predominantly focus on victims, whereas the focus on offenders can enable us to learn more about the effectiveness of VOM for offenders and possibly prevent further crimes and reduce re-offences (Svensson et al., 2013; Hosser et al., 2008). To test these aims, participants engaged in a fictional crime case scenario and imagined being the offenders. Consequently, they completed a survey about their willingness to participate in different VOM forms: letter exchange, FTF, video messages and online video chat. Generally, this research revealed that feelings of guilt and feelings of shame do show some significant effects on the offenders' willingness to participate in various VOM methods. Mainly it was shown that high levels of shame and high levels of guilt positively predict the offenders' willingness to participate in digital VOM methods, namely video messages, and digital video chat. Furthermore, high levels of shame also serve as a positive predictor for the willingness to engage in FTF VOM.

The first hypothesis suggested that high levels of guilt positively predict the offenders' willingness to participate in (digital) methods like letter exchange, video messages and online chat. Results indicated that there was a significant effect for high levels of guilt as a predictor for the willingness to participate in video messages, as well as for the willingness to participate in online video chat. Previous research also indicated that individuals who perceive higher levels of guilt also show a higher willingness and positive attitude towards participation in restorative justice programs (Peleg-Koriat & Weimann-Jaks, 2021). This is in line with the fact that the moral emotion of guilt supports prosocial behaviour and motivates compensatory behaviours (Tangney et al., 2011). Furthermore, offenders with high levels of guilt tend to manage their anger in a constructive way with the use of direct corrective actions and non-hostile conversations and have only little tendency towards aggression (Peleg-Koriat & Weimann-Jaks, 2021). However, high levels of guilt showed no significant effect on the willingness to participate in letter exchange which is not in line with the expectations of this research. Therefore, this hypothesis was only partly rejected. Possible explanations for this finding could be that individuals with high levels of guilt often feel the need to apologise and act in prosocial behaviours (Tagney et al., 2011) are therefore more motivated to participate in VOM methods that offer them a direct way of acting and apologising. This is in line with the

finding that in order to overcome their feelings of guilt, offenders prefer direct corrective action (Peleg-Koriat & Weimann-Jaks, 2021). The VOM method of letter exchange takes some time and cannot offer the possibility to directly discuss the situation and apologise. It can be argued that the method of video messages is similar, but several factors like behavioural, visual, and auditory cues, as well as the effort spent to make these videos (Swaab et al., 2012), can give the offender a more authentic, personal and honest feeling about apologising to the victim. The non-directiveness and time-consuming aspects of letter exchange can be reasons why there was no significant relationship found between the willingness to participate in letter exchange in offenders who experience high levels of guilt.

Next, the second hypothesis assumed that high levels of guilt negatively predict the offender's willingness to participate in FTF VOM. However, results found no significant effect, and thus this hypothesis needed to be rejected. This finding is not in line with the expected findings for this research. There might be several methodological reasons for this: One explanation can be that the given scenario could not elicit enough guilt in this study, because the offender could not imagine themselves in that given situation or could not relate to that situation at all. Therefore, it might not be comparable to the feelings of guilt that real offenders experience after a crime. Also, it could be possible that other feelings than guilt, perhaps feelings of shame, were more dominant in choosing a VOM method that were not considered in this hypothesis. From a practical perspective, often, offenders who have high feelings of guilt have a need to make things right (Tagney et al., 2011) and to show that they put effort into that. Also, research revealed a strong association between guilt and reparative action tendencies (Pivetti et al., 2016). By attending a FTF meeting, they show effort and good will to help the victim. This might explain why the second hypothesis was rejected. Also, for offenders, confrontation might help to reduce their negative feeling of guilt: Instead of "running away", you acknowledge your wrongdoing, which has a cathartic effect on yourself.

Coming to the third hypothesis, high levels of shame positively predict the offenders' willingness to participate in (digital) methods of VOM like letter exchange, video messages and online chat. Results indicated that shame indeed significantly predicts the willingness to participate in online chat as well as video messages. Previous research also showed that individuals who feel high levels of shame are more threatened and concerned with negative evaluations with others (Peleg-Koriat & Weimann-Jaks, 2021), and shame generally has the capacity to motivate people to stick again to social and moral rules (Hosser et al., 2008) which is why offenders are motivated to repair their wrongdoing. Also, the offenders' feelings of

shame can be seen as an indicator of responsibility-taking (Hosser et al., 2008), which is why there were some significant effects found in VOM methods. Also, several researchers state that people often do everything they can in order to avoid feelings of shame (Elster, 1999, as cited in Svensson et al., 2013). However, shame did not predict the offender's willingness to participate in a letter exchange. A possible explanation for this unexpected finding might be that participants did not see letter exchange as a fitting method to show their responsibility-taking (Hosser et al., 2008) because letter exchange does not need as much effort as other VOM methods and offenders, especially people who experience a constructive version of shame (Tangney et al., 2014) often feel the need to put effort in their actions to show their good will and to possibly ensure forgiveness from the victim (Strelan & Feather, 2019) as well as getting the chance to be respected back into the society by "reintegrative shaming" (Tangney et al., 2011). Also, to directly reduce their feelings of shame, letter exchange is too time-consuming and a more non-directive method. Another reason could be that shame-proneness individuals, especially people who experience the defensive pathway of shame (Tagney et al., 2014), often feel the tendency to blame other people and direct anger towards the self but also towards others (Peleg-Koriat & Weimann-Jaks, 2021), which is easier with the use of more directive methods than non-directive. Lastly, one possible explanation could be that individuals who feel a destructive form of shame (Tagney et al., 2014) feel a high tendency to hide because they feel unworthy and exposed (Peleg-Koriat & Weimann-Jaks, 2021) and avoid the other party completely.

Lastly, it was hypothesised that high levels of shame negatively predict the offenders' willingness to participate in FTF VOM. Results indicated a significant correlation between the variables shame and willingness to participate in FTF mediation. They identified shame as a significant predictor for the willingness to participate in FTF mediation. However, the effects that were found were positive and not negative, leading to a rejection of the fourth hypothesis. The findings suggest that high levels of shame positively predict the willingness of offenders to engage in FTF mediation, which is not in line with the expectations of this research. There are several possible explanations for these findings. First, research already mentioned that high levels of shame indicate responsibility-taking (Hosser et al., 2008) and that offenders try to do everything that helps to reduce their feelings of shame (Elster, 1999, as cited in Svensson et al., 2013). Also, shame serves as a motivator towards the obedience of moral and social rules (Hosser et al., 2008), which supports the finding. New research also revealed that the prosocial version of shame can promote pro-social behaviours in form of helping and apologizing (Tangney et al., 2014, as cited in Gausel et al., 2016). It can be concluded that

feelings of shame (especially the non-destructive version of shame), motivate people to act morally, pro-socially and stick to social rules (Gausel et al., 2016) and, therefore, also increase the offenders' willingness to participate in FTF VOM.

Strengths, Limitations and Future Recommendations

Several methodological limitations need to be addressed. The sample of the study needs to be critically considered. Due to the high number of participants that dropped out of this study and therefore needed to be excluded, this research could only be done with a sample size of 49 participants. The higher the sample size, the higher the study's generalizability and representativeness. Furthermore, when focusing on the characteristics of this sample, most of the participants were students. Students are known to be a less representative sample and more homogenous, and therefore it is often assumed that it is hard to generalise results from student samples to the public (Hanel & Vione, 2016). To add on that, most of the participants were German, which makes it also more difficult to generalise the results, because the cultural western background plays a significant role in the perception of situations (Soto-Sanfiel & Montoya-Bermudez, 2022). Next to that, most of the participants were females. However, research in criminology shows that the majority of the offenders are males (Hermann, 2009). Therefore, it would be interesting to do the study with a bigger sample size with more diverse characteristics, including more cultural variety. Also, at least the results showed that the relationship between shame and guilt and willingness to participate in video messages may have been confounded by the demographics of age, gender, and education.

The second limitation focuses on the given crime situation. Because there was not much freedom in the imagination of that situation, as the case was already given, it could be hard for the participants to imagine being in that situation. The chance that some participants have already experienced the exact same situation is low, and due to this, participants could have problems to imagine being the offender in that situation, which can also be seen in the control questions that were asked at the end of the questionnaire. As already identified, most offenders are males, which is why the chance that participants of this study can relate to being the offender is low. This is also confirmed by the control questions that were added at the end of the questionnaire, where many participants answered to had problems imagining being the offender in that situation. However, the method of using a given imaginary crime situation for all participants has the advantage of standardisation because all participants imagined the same situation and based their answers on this specific situation. This also helped to control for other variables, like the severity of crime.

Further research could, instead of providing the participants with a given situation, offer them the option to think about a situation in which they have been an offender in the real life. Especially smaller crimes that are more common can increase the likelihood that more people were offenders in some situations. Additionally, the possibility to name some common offender situations like being in a heavy argument and verbally offending a person are non-crime related situations that are experienced more often. This can make the situation and the related feelings to that situation much more realistic.

The third limitation focuses on the measurements of the feelings of guilt and shame as well as on the willingness to participate. Feelings of guilt and shame have been found to be closely related, and often people who experience shame also experience feelings of guilt (Tagney, 1998). This makes it more difficult to distinguish between these feelings, measure them and generalise the findings. However, the SSGS (Marschall et al., 1994) indicated a high Cronbach's alpha, meaning the constructs of guilt and shame were measured reliably. Also, as beforementioned, the cultural background, as well as the aspect of having experience being an offender, can influence the perception of these two feelings. Also, the measurement of the willingness to participate scale in this research revealed only a low reliability ($\alpha.33$), making it difficult to rely on the results. In Future research, it could be useful to use another willingness to participate scale with higher reliability and take more questions into account that focus on the distinction between guilt and shame in more detail, as this research only used five items for guilt and five items to assess shame.

Lastly, another strength of this research is that the results of using shame and guilt together as two separate predictors in one analysis, found that the observed effects on the willingness to participate in the four different forms of VOM exhibit some changes in comparison to the individual analysis of these variables. Some previously significant effects diminished, new effects emerged or existing effects changes, which highlights the importance and strength of considering shame and guilt as separate constructs in this research and in future research, as their distinct influences on the various forms of willingness to participate can provide valuable insights into the underlying psychological processes.

Implications

The findings of this research contribute to the understanding of the complex interplay between offenders' feelings of shame and guilt and their willingness to participate in various VOM, especially digital VOM methods, in several ways. Firstly, this research revealed that feelings of guilt and feelings of shame do show some significant effects on the offender's willingness to participate in various VOM methods. Especially it was shown that high levels

of shame and high levels of guilt positively predict the offenders' willingness to participate in digital VOM methods, namely video messages, and digital video chat. Furthermore, high levels of shame also serve as a positive predictor for the willingness to engage in FTF VOM. This gives reason to assume that digital VOM could be effective methods for offenders as their feelings of guilt and shame increase their decision to participate, probably with the motivation that participation helps them to reduce their feelings of guilt and shame. This is also in line with existing literature that identified high levels of guilt as a positive predictor for the willingness to engage in restorative justice (Peleg-Koriat & Weimann-Saks, 2021). Furthermore, new insights can be seen in the aspect that shame also has a significant effect on offenders' willingness to participate because previous research assumed shame to not directly predict the offenders' willingness to engage in restorative justice methods but only moderates the effectiveness of restorative justice forms (Peleg-Koriat & Weimann-Saks, 2021). These findings show the importance of making VOM, especially digital VOM in the form of video messages and online video chat, applicable to offenders and include them more in the consideration process if VOM is wanted in a specific situation. Regarding the usability of digital VOM, there are several advantages. Since FTF VOM is often perceived as too confronting or people do not want to put that much effort into travelling or preparation (Bonesteffen et al., 2022), digital VOM methods might increase the participation in VOM. This is because the digital VOM methods are easier to conduct and need less preparation. Also, the distance to the other party decreases stress (Bonesteffen et al., 2022). Mediators who are unsure if they should offer digital VOM can see that this study revealed that offenders are potentially more willing to participate in VOM if it is offered in a digital way, as it helps them to overcome their feelings of guilt and shame. Generally, the findings also have implications for practitioners and researchers in developing interventions that focus on the effectiveness of (digital) VOM methods. This research can inform interventions or support systems that are aimed at helping offenders to better deal with their feelings and prevent further re-offences. Also, this study aims to consider the implementation of digital VOM methods as alternative for offenders who are not willing to participate in traditional direct VOM methods due to several reasons, especially their feelings of shame and guilt. Further research in digital VOM is desirable to analyse the offenders' willingness in more digital methods.

Conclusion

In sum, some of the findings of this research could support the assumption that offenders' feelings of shame and guilt positively predict their willingness to participate in

VOM, especially in digital VOM. It is important to view these interpretations with caution due to the above-mentioned limitations. In a broader context, these findings show that offenders' feelings of guilt and shame do play a significant role when considering digital VOM. Practically, if there are offenders who display high levels of guilt and shame and practitioners want to know which type of treatment may be the best, this study can be mentioned to explain that digital VOM might be considered for these offenders, if FTF VOM is not possible or wanted. Moreover, this research shows that digital VOM might be a good alternative for traditional ways of VOM, if these traditional ways are not suitable due to several reasons. Especially the finding that all digital VOM methods of this research showed a significant effect, and not all traditional VOM methods, underlines the consideration of switching more to digital VOM

Lastly, it is important that the offenders' needs can be met in VOM, which is proven in this research, to assure the prevention of re-offences. In sum, this research found that shame and guilt serve as motivators to apologise, increasing the offenders' willingness for specific VOM methods, especially digital ones.

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Appendix

State Shame and Guilt Scale (SSGS) Marschall et al., 1994

In the following, you will be asked about the feelings you have in the imagined situation.

Imagine you are in that situation right now. The following statements may or may not describe your feelings in the moment of that situation. Please rate each statement using the 5-point scale below. Remember to rate each statement based on the feelings you have in the moment of that situation. Thinking about the moment of that situation...

1. I want to sink into the floor and disappear.
2. I feel remorse, regret.
3. I feel small.
4. I feel tension about something I have done.
5. I feel like I am a bad person.
6. I cannot stop thinking about something bad I have done.
7. I feel humiliated, disgraced.
8. I feel like apologizing, confessing.
9. I feel worthless, powerless.
10. I feel bad about something I have done.

Scoring Each scale consists of 5 items: Shame - Items 1, 3, 5, 7, 9

Guilt - Items 2, 4, 6, 8, 10

All items are scored in a positive direction

Willingness to Participate Scale

There are different ways of conducting Victim-Offender Mediation (VOM).

The traditional way is **face-to-face mediation** in which an victim, offender and mediator meet physically. The digital equivalence would be **computer-based VOM** which takes place in an online environment. These forms constitute a synchronous form of mediation. Asynchronous forms of VOM also exist. One would be the exchange of **video messages** that have been recorded beforehand and send to the other party. Similarly, the affected parties can send each other **written letters** and share their narrative.

While having the situation in mind, please indicate how likely you , as the offender, are to participate in the following forms of Victim-Offender Mediation (1 = strongly disagree; 5 = strongly agree):

- I would like to participate in face-to-face VOM
- I would like to participate in an online video chat.
- I would like to exchange video messages.
- I would like to exchange letters.