Gender-Specific Non-Disclosure of Mental Distress
A Cross-Sectional Survey on Reasons and Associated Factors

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Abstract
Research suggests that non-disclosure of mental distress is associated with poorer mental health. While men are more reluctant to communicate about personal issues with informal and professional social contacts, little is known about the reasons for and factors associated with non-disclosure among men and women. Based on the Disclosure Decision-Making Model and the Communication Privacy Management Theory, we conducted a cross-sectional online survey with a quota sample of 2,471 participants in Germany. In the study, we (a) examined gender differences regarding non-disclosure of distress, (b) aimed to identify individual and relational factors associated with non-disclosure for both genders, and (c) studied men’s and women’s reasoning for non-disclosure of mental distress. Findings demonstrate that (a) non-disclosure was not higher in the male subsample but men had less trusted contacts; (b) individual level factors, particularly the conformity to traditional gender norms, were associated with non-disclosure among both genders; (c) men stipulated the superficiality of the relationship as more relevant reasons, while women indicated privacy and feelings of shame/self-blame as more important. The study findings might inform gender-sensitive mental health campaigns in the sense that questioning traditional gender norms could contribute to disclosure of mental distress among both men and women.

Keywords
Mental health, gender, interpersonal communication, disclosure, prevention.
Ample empirical evidence demonstrates that sharing mental distress with others has a positive impact on mental health, while non-disclosure, and thus “the failure to divulge distress to others” (Cleary, 2005, p. 159), is associated with poorer health and well-being (Smyth et al., 2012). Moreover, disclosing mental distress and more severe mental health problems to others such as family members, friends, colleagues, neighbours or even online contacts is an important first step to receiving informal social support and, if necessary, professional help (Caban et al., 2023). Despite the importance of sharing mental distress with others, “emotional disclosures are quite complex in nature” (Snell et al., 1989, p. 475), as they depend on a multitude of different factors such as personal characteristics, situational conditions and cultural background. Men are particularly reluctant to communicate openly about mental distress and personal issues compared to women (Hill & Stull, 1987; Liddon et al., 2018; Tamres et al., 2002). Whether it concerns opening up about mental health issues, disclosing private information such as illness diagnoses, addressing conflicts with close friends, or talking about one’s emotions in general: Men have a higher tendency of non-disclosure and non-communication than women (Antony & Sheldon, 2019; Cleary, 2005; Pahwa et al., 2017; Petronio, 2002).

Although gender differences in (non-)disclosure of distress have been observed repeatedly, there is a lack of research on differences between men and women regarding the factors associated with non-disclosure of mental distress, as well as the reasons for it. To understand why men and women differ in their non-disclosure of mental distress, it is important to investigate the factors associated with non-disclosure of mental distress separately for both genders. Moreover, it is crucial to examine potential gender differences in the reasons provided by men and women for non-disclosure of mental distress. Knowledge about the factors and reasons for non-disclosure of mental distress can help designing mental health interventions that promote disclosure; and thus serve as a starting point for improved mental health among the two genders.

To address this research gap, we conducted a cross-sectional online survey on the non-disclosure of mental distress involving 2,471 men and women in Germany. The first basic goal of our research was to test whether the previously observed gender differences in the non-disclosure of mental distress could be confirmed in our study. Therefore, both people who disclose and those who do not disclose their mental distress were included in the study. Regarding the factors associated with the non-disclosure of mental distress, both individual level factors of the non-discloser and factors related to the relationship between the (non-)disclosing person and the receiver seem to matter (Pahwa et al., 2017). Our second goal was to investigate the extent to which individual and relationship level factors are associated with non-disclosure of mental distress among men compared to women. Finally, our third goal was to analyse if and how men and women might differ regarding the reasons they indicate for the non-disclosure of mental distress. In summary, achieving all three research goals can contribute to a better understanding of the hows and whys of gender differences in non-disclosure of mental distress.

**Gender-Specific (Non-)Disclosure of Mental Distress**

Sharing one’s problems and burdens with others can improve mental health and promote emotional well-being: “Overall, research on disclosing painful experiences has helped confirm the belief that talking about difficulties is usually a good thing for the one who does the talking.”
(Lewis & Manusov, 2009, p. 282). In contrast, the non-disclosure of mental distress is associated with mental health issues and in some cases even more serious disorders (see Smyth et al., 2012, for an overview). Hence, the non-disclosure of mental distress, i.e., in a broad sense not communicating about “distress in response to an external stressor” (Riehm et al., 2021, p. 94), can exert detrimental effects on an individual’s mental health and well-being. However, studies from the field of (mental) health communication often only focus on communication after mental illness diagnosis, and thus on time periods where help-seeking behaviour has (ideally) already begun. Yet, it is also important to look at communication at an earlier stage and the disclosure of mental distress in everyday life, as bottling up problems may have cumulative, detrimental effects in the long run (Smyth et al., 2012). From a mental health prevention perspective, it is thus crucial to increase knowledge on the factors leading up to non-disclosure in order to address them in campaigns and communication interventions in a suitable manner.

Gender can be defined as “an individual’s socially ascribed attributes, roles, responsibilities and expectations in a given society based on their gender expression and how others perceive it” (Miani et al., 2021). It is one decisive factor when it comes to non-disclosure. Gender differences in mental health communication are well-known and the same holds true for differences in (non-)disclosure: Studies – typically based on participants’ self-categorizations of cisgender persons as male or female (and rarely on other genders) (Keener, 2015) – indicate that men communicate less about emotional and intimate topics and feelings than women, both in personal and clinical settings (Hill & Stull, 1987; Liddon et al., 2018; Tamres et al., 2002). These differences are closely related to gender role concepts and gender norms (e.g., of the strong, silent man) associated with communication behaviour and emotion expression within relationships (Cleary, 2005). Empirical evidence further shows that men’s mental health literacy is lower than women’s and that men are thus more hesitant to share their mental distress with others. In contrast, women are more likely to disclose mental health issues to both informal and professional sources of support than men do (Furnham & Swami, 2018; Lynch et al., 2018; Oliver et al., 2005; Pahwa et al., 2017). In our first hypothesis and in line with previous research, we thus assume:

\[ H1: \text{The likelihood of non-disclosure of mental distress is higher for men than for women}. \]

**Factors Associated with the (Non-)Disclosure of Mental Distress**

An important goal of our study is to examine the factors that are potentially associated with non-disclosure of mental distress among both men and women – and thus contribute to an understanding of the mechanisms at hand. To model decision-making in interpersonal disclosure and conceptualize the factors that matter in this regard, many studies in the field of interpersonal communication have drawn on the disclosure decision-making model (DD-MM) by Greene (2009). The model stems from the context of health-related disclosure and delineates the decision to disclose intimate health information such as a diagnosis to significant others. When it comes to the decision for disclosure or non-disclosure, the DD-MM emphasizes the importance of factors relating to the individual level (i.e., the level of the discloser) and the relational level (i.e., the level of the relationship). In this paper, we follow this trajectory, and differentiate between factors on the individual level and factors on the relationship level. Also drawing on the DD-MM and its implications, and transferring it to the context of mental health
and illness, Pahwa et al. (2017) similarly conclude that disclosure of mental health issues is influenced by both individual level factors and relationship level factors. According to the authors, individual level factors include sociodemographic aspects such as gender but also other factors such as stigma and perceived support, whereas relational level factors comprise, for instance, relationship type, duration, or quality. Following these assumptions, there are several individual level factors and relational level factors that can be derived from literature in the context of non-disclosure of mental distress.

**Individual Level Factors Associated with the Non-Disclosure of Mental Distress**

Empirical research as well as theoretical approaches suggest that depressiveness, loneliness, and the conformity to traditional gender norms of the potential discloser might be individual level factors associated with an increased likelihood of non-disclosure (e.g., Garrison et al., 2012; Ignatius & Kokkonen, 2007; Lynch et al., 2018).

**Depressiveness.** Empirical evidence shows that men’s depressive symptoms differ from women’s, which has led to the introduction of the concept of ‘male depression’ (Sedlinská et al., 2021). It encompasses additional indicators of depressive symptoms predominantly observed in men, including the restraint of emotions, aggression towards others, substance abuse, and a propensity for risk-taking. Regardless of depression type, however, experiencing depressiveness and suffering from depressive symptoms is closely linked to the non-disclosure of mental distress. Previous studies show that people who are affected by clinical depression, but also milder symptoms of depressiveness display higher rates of non-disclosure than non-depressed people (Garrison et al., 2012; Lee et al., 2017; MacDonald & Morley, 2001). This can in parts be explained by a degree of social withdrawal and isolation that goes along and is associated with higher depressiveness (Ge et al., 2017). Regarding depressiveness as a potential associated factor, we assume:

\[ H2a: \text{Depressiveness will be positively related to non-disclosure of mental distress.} \]

**Perceived Loneliness.** Besides depressiveness, loneliness seems to be negatively related to self-disclosure. Studies suggest that people who are lonely have lower rates of self-disclosure, which might result in a mutually reinforcing pattern of not sharing distress with others and perceived loneliness (see Ignatius & Kokkonen, 2007, for an overview). In the context of mental illness, perceptions of loneliness in potential disclosers even emerged as a positive predictor of non-disclosure of suicidal thoughts (Mérelle et al., 2018). It thus seems plausible to assume that feelings of loneliness on the side of the discloser might be linked to the non-disclosure of mental distress:

\[ H2b: \text{Perceived loneliness will be positively related to non-disclosure of mental distress.} \]

**Conformity to Traditional Gender Norms.** Another important individual aspect when it comes to non-disclosure are gender norms and roles and the conformity to traditional norms of masculinity and femininity. The so-called *communication privacy management theory* (CPM) by Petronio (2002), which refers to the management of private information, identifies gender as a core concept of non-disclosure. According to the author, gender socialization and norms are important aspects influencing an individual’s decision to share (or not to share) private information with others. It argues that “gender differences may contribute to alternative rule structures that regulate boundaries for men and women” (Petronio, 2002, p. 39). What can and
cannot be shared is hence also influenced by the gendered rules regarding expression of emotions and mental distress.

Because of the well-known gender differences in non-disclosure and its detrimental effects particularly for men, research is often focused on norms of masculinity as barriers to emotion expression. For instance, the gender role conflict model (GRCM) (O’Neil, 2008) assumes restrictive emotionality and constraints in emotion expression to be an important constituent of masculine role identity that is linked to non-disclosure. Similarly, Dolgin et al. (1991, p. 312) argue that “male gender socialization discourages men from expressing emotions”, as disclosure of mental distress and mental health problems is largely considered to be “unmasculine behavior” (Cleary, 2005, p. 160) in the sense of traditional gender norms. Research even shows that internalized traditional masculine norms can hinder men to seek professional help in case of mental health issues and emergencies (Lynch et al., 2018). We hence propose:

**H2c:** A higher conformity to traditional norms of masculinity will be positively related to non-disclosure of mental distress among men.

To what extent non-disclosure of mental distress is impacted by norms of femininity, however, has received less scholarly attention. While traditional feminine norms have been adduced as an explanation for women’s higher disclosure, it has also been found that this only holds true for the expression of positive and not negative emotions (Simpson & Stroh, 2004). Since mental distress mostly refers to negative emotions, we pose the following question:

**RQ1:** How will a higher conformity to traditional norms of femininity be related to non-disclosure of mental distress among women?

**Relationship Level Factors Associated with the Non-Disclosure of Mental Distress**

The factors associated with non-disclosure that can be located on the relational level are mostly related to the amount and (perceived) quality of trusted relationships. The DD-MM conceptualizes relationship quality as a key variable, as it assumes self-disclosure to be higher in a closer, more intimate relationship (Greene, 2009). Empirical evidence also suggests that the closeness of the relationship as well as the number of trusted interpersonal contacts, and the frequency of communication with them are relevant to the likelihood of non-disclosure (e.g., Cleary, 2005; Reavley et al., 2018).

**Number of Trusted Interpersonal Contacts.** Loved ones are crucial conversation partners and sources of social support, and typically more important than (health) professionals when it comes to mental health problems (Oliver et al., 2005). Hence, one important factor associated with non-disclosure is most likely the number of trusted and close contacts in one’s personal network with whom the distress can be shared. Indeed, research suggests that a lack of (trusted) interpersonal relationships and intimacy with others appears to be positively related to the non-disclosure of mental distress (Cleary, 2005; Willems et al., 2020). If close and trusted interpersonal relationships are scarce, the non-disclosure of negative feelings and experiences should thus be more likely. Along these lines, we propose the following hypothesis:

**H3a:** The number of trusted interpersonal contacts will be negatively related to non-disclosure of mental distress.
Closeness and Frequency of Contact. Besides the amount of trusted interpersonal contacts, the quality of the relationships and the communication basis should also play a role, when it comes to the non-disclosure of mental distress. In a study on the disclosure of mental health problems in the Australian population, Reavley et al. (2018, p. 352) found that the perceived closeness of a relationship was directly related to the tendency (not) to disclose mental health issues: “As relationship closeness decreased, the likelihood of disclosure decreased.” Similarly, Sheldon and Pecchiono (2014) found self-disclosure to be highly dependent on trust as well as communication and relationship quality, as can be indicated by the perceived closeness and contact frequency. It hence seems plausible to assume that a good communication basis and frequent contact between the communication partners is associated with disclosure of mental distress. Regarding the relationship-related factors, we therefore propose the following assumptions:

\[ H3b: \text{Closeness will be negatively related to non-disclosure of mental distress.} \]

\[ H3c: \text{Frequency of communication will be negatively related to non-disclosure of mental distress.} \]

Whereas the literature hints at the various factors on individual and relationship levels associated with non-disclosure, there is little knowledge to what extent they apply to men and women. Formulating the following research question, we thus aim at the aforementioned factors for the two genders:

\[ RQ2a: \text{What are the individual level factors associated with non-disclosure of mental distress among (i) women and (ii) men?} \]

\[ RQ2b: \text{What are the relationship level factors associated with non-disclosure of mental distress among (i) women and (ii) men?} \]

Reasons for (Non-)Disclosure

Apart from the factors that might increase the likelihood of non-disclosure, it is also important to take a closer look at the reasoning of the individuals who decide not to disclose their mental distress. The DD-MM hints towards several reasons for non-disclosure: perceived stigma, the belief that the problem can (not) be communicated effectively, perceptions regarding the expected support and understanding on the side of the receiver are all theorized in the model. The CPM further adds the reason of privacy protection. Empirical research has indeed shown, that the reasons for non-disclosure of sensitive topics within relationships are predominantly feelings of shame/ self-blame, fear of rejection and stigma, a perceived lack of social support and/or understanding, protection of privacy, communication difficulties, as well as the wish to protect and not burden others (Derlega et al., 2002; Smyth et al., 2012).

These reasons have already been researched in the context of illness diagnoses but have so far been neglected in research on mental health communication. To what extent men and women differ in their reasons for non-disclosure of mental distress has hence not been examined so far. We thus ask:

\[ RQ3: \text{To what extent do men and women differ regarding their reasons for non-disclosure of mental distress?} \]
Method

To examine the hypotheses and research questions, a cross-sectional online survey with 1,400 male and 1,071 female participants was conducted. The study was approved by the institutional Ethics Committee at Bielefeld University (No. 2021-194). Data collection took place between the end of November 2021 and mid-December 2021. The recruitment of the participants was carried out with the support of the professional panel provider Respondi, which is now called Bilendi. The completion rates for the survey (i.e., the number of people who completed the survey once they clicked on the link) were over 60%. Participants on average needed 17.27 minutes ($SD = 10.35$) to fill out the questionnaire.

Sample

The original sample comprised 2,519 participants. Of this sample, 48 participants were removed due to mistakes in answering the scenario-based questions (see below), response patterns, or unrealistic survey response time – most of them were women ($n = 34$). We included both people who did disclose and those who did not disclose mental distress in the sample. To assess gender as the decisive grouping variable in sample construction, we asked: “Please indicate which gender you feel you identify as (male/ female)”. Other gender identity types were not included in the study, although we explicitly acknowledge that the disclosing behaviour of minorities and potentially (more) discriminated persons has to and should be studied (see Limitations section); particularly, since their disclosing behaviour is most probably even more influenced by social norms. The final sample comprised 2,471 participants, of which 1,400 identified as male (56.7%) and 1,071 identified as female (43.3%). Sample size was estimated as 1,200 participants per subsample using G*Power for logistic regression with an estimated OR value of 1.2 guided by a Dutch survey of non-disclosure of suicide ideation (Mérelle et al., 2018). The provider recruited the female subsample ($n = 1,071$) and a substantial part of the male subsample ($n = 1,040$) using a quota sampling procedure to match the distribution of age and education with that of the German population. We further included a male ‘booster’ subsample of men who had been diagnosed with depression that comprised 360 participants in addition to the aforementioned 1,040 men. Both the booster sample and the quota sample were recruited simultaneously. The inclusion of the booster sample was done to establish comparability between the male and the female subsample regarding the prevalence of the mental illness. While the number of depression diagnoses was on average higher in the final sample (approx. 29%) than in the German population (approx. 8%), the prevalence ratio between men and women in the final sample was similar to that in the population, which is approximately 1.7 (women) to 1 (men) (Robert-Koch-Institut, 2021). The mean age for the male subsample was 48.84 years ($SD = 17.1$), and for the female subsample 48.60 years ($SD = 15.7$). Participants in the total sample were on average 48.74 years ($SD = 16.5$). For an overview of the key sample characteristics for men and women see Table 1.

Procedure

The members of the online access panel were invited to participate in the study by clicking on a link to the online survey. Before they agreed to take part in the study, they were informed about modalities of consent and data protection regulation. Once they had provided their informed consent, they filled out the online questionnaire. In a first step, subjects’ basic
Table 1. Overview of Sample Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Male n = 1,400</th>
<th>Female n = 1,071</th>
<th>Total Sample N = 2,471</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 39 years</td>
<td>474</td>
<td>33.9</td>
<td>345</td>
</tr>
<tr>
<td>40 to 54 years</td>
<td>431</td>
<td>30.8</td>
<td>291</td>
</tr>
<tr>
<td>over 55 years</td>
<td>495</td>
<td>35.4</td>
<td>435</td>
</tr>
<tr>
<td><strong>Formal education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>506</td>
<td>36.1</td>
<td>326</td>
</tr>
<tr>
<td>middle</td>
<td>420</td>
<td>30.0</td>
<td>389</td>
</tr>
<tr>
<td>high</td>
<td>474</td>
<td>33.9</td>
<td>356</td>
</tr>
<tr>
<td><strong>Depression diagnosis</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>yes</td>
<td>360</td>
<td>25.7</td>
<td>359</td>
</tr>
<tr>
<td>no</td>
<td>1,040</td>
<td>74.3</td>
<td>712</td>
</tr>
</tbody>
</table>

Sociodemographic characteristics such as age, gender and formal education were assessed. In a second step – following a scenario-based network approach – the participants were asked to name up to three interpersonal contacts in pseudonymized form with whom they would discuss important life-decisions and burdening personal matters. They could additionally specify the number of trusted interpersonal contacts they would have stipulated if the nomination of more than three had been possible. Afterwards, for each of the trusted interpersonal contact they had named in pseudonymized form, the participants answered statements regarding the frequency of communication with them, their perceived emotional closeness as well as their physical closeness. In a third and final step, participants rated their agreement to different reasons for non-disclosure, their degree of perceived loneliness, their degree of depressiveness as well as their conformity to traditional norms of masculinity or femininity.

**Measures**

The questionnaire comprised a measure for non-disclosure, measures of factors associated with non-disclosure on the individual as well as on the relationship level, and measures for the potential reasons for this non-disclosure. At different points in the questionnaire, instructed response items were interspersed as attention checks to sort out inattentive respondents before data analysis (Gummer et al., 2021). All variables were rated on seven-point Likert scales, with the exception of non-disclosure, which was assessed as a binary variable, and physical closeness, which was measured on a four-point Likert scale. Tables 2 and 3 provide an overview of the means, standard deviations, and correlations of all variables in the male and female subsamples.

**Non-Disclosure.** Non-disclosure of mental distress in relationships was assessed with a dichotomous variable. Participants were asked to respond to the following yes or no question: “Are there any topics of distress you do not talk about with anyone you are otherwise close to?”.

**Individual Level Factors.** The potential individual level factors included in the study were depressiveness, perceived loneliness, and the conformity to traditional gender norms. The items
on the seven-point Likert scale for perceived loneliness and depressiveness ranged from *(almost) never* to *(almost) always*, the items for conformity to gender norms were rated from *strongly disagree* to *strongly agree*. Mean indices were calculated in all cases. Since men tend to display symptoms of so-called *male depressiveness* more (e.g., aggressiveness, substance abuse, risk-taking) compared to women, we used separate scales for the male and the female subsample. In both cases, participants were asked to what extent the following statements had applied to them in the past two weeks. The male participants responded to the male depression risk scale (MDRS-22) with 22 items by Rice et al. (2013). Sample items included “I was verbally aggressive to others” or “I bottled up my negative feelings”. The scale showed a satisfactory reliability (\(M = 2.15, SD = 1.05\), Cronbach’s \(\alpha = .84\)). The female participants responded to the general depression scale (ADS) with 20 items by Hautzinger et al. (2012) (\(M = 3.23, SD = 1.17\), Cronbach’s \(\alpha = .94\)). Sample items were “I thought of the future full of hope” (reversed) and “I talked less than usual”.

*Perceived loneliness* was assessed with 20 items from the UCLA loneliness scale by Russell (1996) for the whole sample (\(M = 3.30, SD = 1.08\), Cronbach’s \(\alpha = .92\)). Exemplary items were “How often do you feel that you lack companionship?” and “How often do you feel that no one really knows you well?”.

To measure participants’ *conformity to gender norms*, that is, to what extent they adhered to traditional norms of masculinity or femininity, again, separate measures for men and women were used. The male subsample responded to the 22-items version of the conformity to masculine norms inventory (CMNI) by Burns and Mahalik (2008) (\(M = 3.40, SD = 0.79\), Cronbach’s \(\alpha = .79\)), in which typical masculine norms such as power over others or importance of work are presented (e.g., “I love it when men are in charge of women” or “I enjoy taking risks”). The female subsample responded to a 27-items version of the conformity to feminine norms inventory (CFNI) by Mahalik et al. (2005) (\(M = 4.62, SD = 0.61\), Cronbach’s \(\alpha = .70\)), which includes norms such as modesty, invest in appearance, or care for children. Sample items were “I always downplay my achievements” or “It is essential to be in a romantic relationship”.

To additionally control for relevant sociodemographic characteristics, age and formal education were assessed. The variable of formal education comprised seven different manifestations of the German education system; age was assessed in years.

**Relationship Level Factors.** The potential factors associated with non-disclosure that are located on the relationship level comprised the number of trusted interpersonal contacts, the frequency of communication with the person, the perceived emotional closeness with them as well as the actual physical closeness operationalized as living distance. To assess the *number of interpersonal trusted contacts* in the participant’s social network, two scenario-based questions were used. In doing so, we followed a social network approach, which often uses scenarios to identify relations between different entities (e.g., people), on the basis of, for example, emotional or geographical closeness (Scott, 2012). In our survey, the participants responded to the questions “Whose advice would you seek on important personal decisions in your life?” and “Who do you consider a trusted person with whom you would talk about very personal stressful things?”. They then first indicated the number of people they would contact for each question and then named up to three interpersonal contacts using a pseudonym. This procedure allowed us to identify identical contacts provided to both questions, and thereby retrieve the closest relationships for each individual participant in a controlled manner. How
frequently they communicated with the person, how close they felt to them and how close they were physically with them was then assessed for each indicated person separately. The question for frequency of communication (“How often do you communicate with the person?”) and the question for emotional closeness (“How close do you feel to the person?”) were measured on a seven-point Likert scale (frequency of communication: 1 = never, 7 = very often; emotional closeness: 1 = not at all close, 7 = very close). Finally, physical closeness was assessed as a complementary variable to emotional closeness on a 4-point Likert scale asking, “Where does the person live?” with the response options “in my household”, “in the same place/city”, “in the vicinity (< 50 km)”, “in the wider area (> 50 km)”.

Reasons for Non-Disclosure. The reasons for non-disclosure were only measured among the 1,465 people in the sample who had previously indicated not to disclose certain issues of distress to others. They were assessed with 23 items from a scale by Derlega et al. (2002), which originally stemmed from the context of HIV disclosure. The scale was adapted to the topic of mental distress for the purpose of the survey. It comprised six subscales with potential reasons for non-disclosure (privacy, feelings of shame/self-blame, communication difficulties, fear of rejection, protecting others, superficiality of relationships). Participants rated the statements on a seven-point Likert scale from strongly disagree to strongly agree, and all reasons were calculated as separate mean indices. Privacy as a reason for non-disclosure was assessed with three items (one item deleted after reliability analysis) including the item “I have a right to privacy” (M = 5.12, SD = 1.24, Cronbach’s α = .81). Three items were used to measure feelings of shame/self-blame as a reason for non-disclosure (M = 4.32, SD = 1.77, Cronbach’s α = .84). A sample item was “I feel bad about myself”. Communication difficulties as a potential reason was assessed with four items including the item “I would get tongue-tied when I tried to talk about these matters” (M = 3.85, SD = 1.79, Cronbach’s α = .92). Fear of rejection (M = 3.55, SD = 1.71, Cronbach’s α = .86) was measured by using four items, e.g., “I was concerned that the other person wouldn’t understand what I was going through”. Protecting others as another potential reason for non-disclosure was also assessed with four items with satisfactory reliability (M = 4.45, SD = 1.78, Cronbach’s α = .90). An example is the item “I didn’t want the other person to worry about me”. Lastly, the superficiality of relationships as a possible reason to not disclose mental distress was measured with four items (M = 2.85, SD = 1.77, Cronbach’s α = .93). A sample item was “We aren’t very close to one another”.

Table 2. Descriptive Statistics and Correlations: Male Subsample

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depressiveness</td>
<td>2.15</td>
<td>1.05</td>
<td>-</td>
<td>.27</td>
<td>.25</td>
<td>.20</td>
<td>.08</td>
<td>-</td>
<td>-.09</td>
<td>-.15</td>
</tr>
<tr>
<td>2. Perceived loneliness</td>
<td>3.30</td>
<td>1.06</td>
<td>.53*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Femininity norms</td>
<td>3.40</td>
<td>0.79</td>
<td>.47*</td>
<td>.24*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. No. of contacts</td>
<td>2.12</td>
<td>1.57</td>
<td>.10*</td>
<td>-.03</td>
<td>.09*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Frequency of contact</td>
<td>5.68</td>
<td>1.22</td>
<td>-.20*</td>
<td>-.24*</td>
<td>-.13*</td>
<td>-.16*</td>
<td></td>
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</tr>
<tr>
<td>6. Emotional closeness</td>
<td>5.83</td>
<td>1.24</td>
<td>-.22*</td>
<td>-.27*</td>
<td>-.14*</td>
<td>-.15*</td>
<td>.63*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Physical closeness</td>
<td>2.41</td>
<td>0.85</td>
<td>.03</td>
<td>.06*</td>
<td>.01</td>
<td>.13*</td>
<td>-.35*</td>
<td>-.19*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Non-disclosure</td>
<td>.61</td>
<td>0.49</td>
<td>.27*</td>
<td>.25*</td>
<td>.20*</td>
<td>.08*</td>
<td>-.09*</td>
<td>-.15*</td>
<td>.03</td>
<td></td>
</tr>
</tbody>
</table>

Note. *0 = disclosure, 1 = non-disclosure. *p < .05, **p < .01.
Table 3. Descriptive Statistics and Correlations: Female Subsample

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Depressiveness</td>
<td>3.23</td>
<td>1.17</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Perceived loneliness</td>
<td>3.30</td>
<td>1.11</td>
<td>.73*</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Femininity norms</td>
<td>4.62</td>
<td>0.61</td>
<td>-.02</td>
<td>-.18**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. No. of contacts</td>
<td>2.47</td>
<td>1.40</td>
<td>-.01</td>
<td>-.12**</td>
<td>.15**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Frequency of contact</td>
<td>6.05</td>
<td>1.00</td>
<td>-.12**</td>
<td>-.21**</td>
<td>.10**</td>
<td>-.10**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Emotional closeness</td>
<td>6.19</td>
<td>0.92</td>
<td>-.22**</td>
<td>-.29**</td>
<td>.15**</td>
<td>-.13**</td>
<td>.55**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Physical closeness</td>
<td>2.42</td>
<td>0.77</td>
<td>.04</td>
<td>.09**</td>
<td>-.04</td>
<td>-.10**</td>
<td>-.33**</td>
<td>-.15**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>8. Non-disclosure a</td>
<td>0.57</td>
<td>0.49</td>
<td>.26**</td>
<td>.31**</td>
<td>.04</td>
<td>-.01</td>
<td>-.08*</td>
<td>-.14**</td>
<td>.03</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: * 0 = disclosure, 1 = non-disclosure. **p < .05, ***p < .01.

Data Analysis

A chi-squared test was calculated with gender and non-disclosure as variables to test the assumption that men had a higher likelihood of non-disclosure than women (H1). To examine the research questions and hypotheses, in which we were interested in the (gender-specific) factors potentially associated with non-disclosure (H2 to H3 and RQs2), block-wise logistic regression analyses were conducted with the factors as independent variables and the binary variable of non-disclosure (yes/no) as the dependent variable. Logistic regression models were calculated separately for the male subsample and the female subsample. The calculations for both models were carried out in the following procedure: In a first step, the sociodemographic variables age and education were entered as a block into the regression model. Doing so, the categorial variable formal education was dummy coded before being included in the models (reference category (rc) = low formal education). In a second step, the individual variables depressiveness, perceived loneliness, and belief in traditional gender norms were included as a block in the model. Finally, and in a third step, the relationship variables number of trusted contacts, frequency of communication, emotional closeness as well as physical closeness were entered as a block into the model. Odds ratio (OR) was used as an indicator of the strength of the relationships between the respective factor and the outcome variable non-disclosure of mental distress.

To examine the gender differences in reasons for non-disclosure (RQ3), t-tests for independent samples were conducted with gender as the independent variable and the respective reasons for non-disclosure as dependent variables. Here, only those participants served as a basis that had actually specified to not disclose their mental distress to others (male subsample: n = 851; female subsample: n = 614).

Results

Differences in Non-Disclosure between Men and Women

Of the overall sample of 2,471 people, 59.3 percent, that is, 1,465 participants, specified to not disclose certain topics of distress to others. Contradicting previous research and the assumption formulated in H1, we found no significant difference regarding the general tendency to non-disclosure of mental distress between genders. 60.8% of the men and 57.3% of the women in the sample indicated non-disclosure on some matters, the difference was thus non-significant
(χ² = 3.00, df = 1, p = .083). However, the men and women in the survey significantly differed in terms of the number of trusted interpersonal contacts they indicated (t(2412) = 5.80, p < .001). The male participants designated on average 2.12 (SD = 1.57) trusted contacts, with 17.1% of the men naming no trusted interpersonal contact at all. The female participants indicated slightly more contacts, i.e., 2.47 (SD = 1.40) contacts on average. In contrast to the men, only 9.6% of the women appointed no trusted person at all.

**Factors Associated with Non-Disclosure among Men and Women**
Both the whole model for the male subsample (χ² = 130.71, df = 9, p < .001) and the whole model for the female subsample (χ² = 128.19, df = 9, p < .001) were significant. An overview of the findings can be found in Table 4. To determine how well the data fit the models, a Hosmer-Lemeshow test was conducted. The p values for the male subsample (χ² = 7.02, df = 8, p = .540), and the female subsample (χ² = 12.49, df = 8, p = .130) were nonsignificant, indicating a good fit of the models.

**Individual Level Factors Associated with Non-Disclosure.** Regarding the sociodemographic variables as factors potentially associated with non-disclosure, the results showed that age and education neither played a role for non-disclosure in the male subsample nor in the female subsample. The individual variables, on the contrary, were related to an increased likelihood of non-disclosure: In H2a we assumed depressiveness to be positively associated with non-disclosure. The analysis showed that depressiveness did emerge as a factor significantly associated with non-disclosure in the male subsample (OR = 1.47, 95% CI [1.23, 1.76]), but not in the female subsample (OR = 1.11, 95% CI [0.93, 1.33]). That means that a higher depressiveness is linked to a higher likelihood of non-disclosure among men. Moreover, perceived loneliness and the conformity with traditional gender norms emerged as factors associated with non-disclosure of mental distress in the two subsamples. Supporting H2b, we

<table>
<thead>
<tr>
<th>Factors</th>
<th>Male n = 1,400</th>
<th>Female n = 1,071</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.01 (1.00, 1.02)</td>
<td>1.00 (0.99, 1.01)</td>
</tr>
<tr>
<td>Education</td>
<td>1.03 (0.93, 1.14)</td>
<td>0.96 (0.85, 1.07)</td>
</tr>
<tr>
<td>Depressiveness</td>
<td>1.47 (1.23, 1.76)</td>
<td>1.11 (0.93, 1.33)</td>
</tr>
<tr>
<td>Perceived loneliness</td>
<td>1.33 (1.14, 1.55)</td>
<td>1.83 (1.50, 2.23)</td>
</tr>
<tr>
<td>Gender norms (male vs. female)</td>
<td>1.31 (1.09, 1.58)</td>
<td>1.51 (1.19, 1.91)</td>
</tr>
<tr>
<td>Number of contacts</td>
<td>1.04 (0.94, 1.15)</td>
<td>1.05 (0.93, 1.18)</td>
</tr>
<tr>
<td>Frequency of contact</td>
<td>1.13 (0.98, 1.30)</td>
<td>1.03 (0.87, 1.23)</td>
</tr>
<tr>
<td>Emotional closeness</td>
<td>0.82 (0.71, 0.94)</td>
<td>0.84 (0.69, 1.01)</td>
</tr>
<tr>
<td>Physical closeness</td>
<td>1.04 (0.88, 1.22)</td>
<td>0.98 (0.81, 1.18)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.10 (.003)</td>
<td>0.05 (.005)</td>
</tr>
<tr>
<td>Nagelkerke R²</td>
<td>.145 (.166)</td>
<td></td>
</tr>
</tbody>
</table>

Note. Block-wise logistic regression, first block: individual factors, second block: relationship factors. OR is odds ratio.
found for both men and women that a higher perceived loneliness made the non-disclosure of mental distress more probable (perceived loneliness: male: OR = 1.33, 95% CI [1.14, 1.55], female: OR = 1.83, 95% CI [1.50, 2.23]). In H2c we expected that a higher conformity to traditional gender norms would be positively associated with non-disclosure among men. Indeed, the analysis showed that H2c was supported by our data (OR = 1.31, 95% CI [1.09, 1.58]). Regarding RQ1, we found the same pattern for women in the sense that a higher conformity to traditional norms of femininity was also associated with an increased likelihood for non-disclosure (OR = 1.51, 95% CI [1.19, 1.91]).

**Relationship Level Factors Associated with Non-Disclosure.** With respect to the relationship level factors, hypotheses 3a, 3b, and 3c were only partly supported. Regarding the variables related to the nature of the relationship with the trusted social contacts, the results showed that while the number of trusted interpersonal contacts, the frequency of communication with them, and their physical closeness did not play a role for non-disclosure, the perceived emotional closeness was indeed significantly related to non-disclosure – but only among men (OR = 0.82, 95% CI [0.71, 0.94]), and not among women (OR = 0.84, 95% CI [0.69, 1.01]). This was the case in the sense that a lower perceived emotional closeness was significantly associated with an increased likelihood for non-disclosure among the male participants. Thus, answering RQ2b on the gender specific links between relationship level factors and non-disclosure of mental distress, we found only emotional closeness to be a relevant factor in the male subsample; none of the relationship level factors were associated with non-disclosure of mental distress in the female subsample.

In sum, looking at the explanatory powers of the logit models, we found that the explained variance for both subsamples was moderate with Nagelkerke’s $R^2$ at 0.15 and 0.17. The comparatively low numbers suggest that there might be additional factors at play when it comes to non-disclosure of mental distress. Looking at the model fit among both genders, the model seemed to marginally fit better the subsample of people who identified as women. It accounted for 16.6 percent of the outcome variance in this subsample compared to 14.5 percent in the subsample of people who identified as men.

**Reasons for Non-Disclosure among Men and Women**

In RQ3, we were interested in potential gender differences regarding the reasons for non-disclosure. We found significant gender differences with respect to privacy concerns, feelings of shame/ self-blame, and the superficiality of relationships as reasons for non-disclosure (see Table 5). Privacy concerns were indicated as more relevant reasons for non-disclosure in the female subsample ($M = 5.20, SD = 1.20$) compared to the male subsample ($M = 5.07, SD = 1.27, p = .046$). A similar pattern was found for feelings of shame/ self-blame, which were indicated as more important reasons among female participants ($M = 4.48, SD = 1.81$) than among male participants ($M = 4.20, SD = 1.73, p = .003$). The superficiality of relationships as a reason for non-disclosure, however, was rated as being more relevant to men ($M = 2.99, SD = 1.77$) compared to women ($M = 2.66, SD = 1.76, p < .001$). Apart from that
Table 5. Reasons for Non-Disclosure: Gender Differences

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Male n = 851</th>
<th>Female n = 614</th>
<th>df</th>
<th>t</th>
<th>p</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privacy</td>
<td>M 5.07</td>
<td>M 5.20</td>
<td>SD 1.27</td>
<td>1.20</td>
<td>1463</td>
<td>-2.00</td>
</tr>
<tr>
<td>Shame/self-blame</td>
<td>M 4.20</td>
<td>M 4.48</td>
<td>SD 1.73</td>
<td>1.81</td>
<td>1463</td>
<td>-2.97</td>
</tr>
<tr>
<td>Communication problems</td>
<td>M 3.80</td>
<td>M 3.91</td>
<td>SD 1.74</td>
<td>1.87</td>
<td>1463</td>
<td>-1.14</td>
</tr>
<tr>
<td>Fear of rejection</td>
<td>M 3.55</td>
<td>M 3.55</td>
<td>SD 1.67</td>
<td>1.77</td>
<td>1278</td>
<td>-0.02</td>
</tr>
<tr>
<td>Protection of others</td>
<td>M 4.48</td>
<td>M 4.41</td>
<td>SD 1.71</td>
<td>1.88</td>
<td>1463</td>
<td>0.73</td>
</tr>
<tr>
<td>Superficiality of relationship</td>
<td>M 2.99</td>
<td>M 2.66</td>
<td>SD 1.77</td>
<td>1.76</td>
<td>1323</td>
<td>3.52</td>
</tr>
</tbody>
</table>

Note. Reported are results from t-tests for independent samples.

...and regarding general communication problems, fear of rejection by others, as well as protection of others as potential reasons for non-disclosure, we found no significant differences between men and women.

Table 6 provides an overview of the summarized results based on the hypotheses and research questions.

Discussion

The goals of our survey were threefold: (1) to examine previously observed gender differences in the non-disclosure of mental distress, (2) to investigate factors significantly associated with non-disclosure among men and women, and (3) to study potential gender differences regarding the reasons for non-disclosure. This is a highly relevant matter since non-disclosure of mental distress can be an endangerment to mental health, and little is known about gender specificities of the factors associated with and the reasons for non-disclosure.

Our findings underline the proposed complexity of non-disclosure (Snell et al., 1989). They demonstrate that men and women significantly differ in aspects related to the non-disclosure of mental distress in some regards, but also share commonalities in others. First of all, and regarding the first research goal, our study results only partially substantiated previous research that found men engaging in non-disclosure to a higher degree than women. Although the likelihood of non-disclosure was not higher in the male subsample of our survey, the percentage of people with no trusted interpersonal contact turned out to be higher among men compared to women.

Concerning the second research goal, our results generally indicated that individual level variables were notably more relevant for the non-disclosure of mental distress than the relationship level factors included in the study. This observation is important, as it highlights that the factors relevant for non-disclosure seem to be more rooted in the characteristics of the individual non-disclosing person than in the relationship between the non-discloser and the receiver. Regarding the individual level factors, a higher perceived loneliness and a higher conformity to traditional gender norms were linked to a significantly increased likelihood of non-disclosure both among men and women. Perceived loneliness has been repeatedly shown to be strongly linked to self-disclosure and non-disclosure (Ignatius & Kokkonen, 2007), and should hence play a prominent role in non-disclosure research. Furthermore, the findings stress
Table 6. Overview of Results Summarized by Hypotheses and Research Questions

<table>
<thead>
<tr>
<th>Hypotheses/Research Question</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1</strong>: The likelihood of non-disclosure of mental distress is higher for men than for women. <strong>H2a</strong>: Depressiveness will be positively related to non-disclosure of mental distress.</td>
<td><strong>H1</strong> was not supported. No significant difference between men and women. <strong>H2a</strong> was only supported among men, not among women.</td>
</tr>
<tr>
<td><strong>H2b</strong>: Perceived loneliness will be positively related to non-disclosure of mental distress.</td>
<td><strong>H2b</strong> was supported for both men and women.</td>
</tr>
<tr>
<td><strong>H2c</strong>: A higher conformity to traditional norms of masculinity will be positively related to non-disclosure of mental distress among men.</td>
<td><strong>H2c</strong> was supported.</td>
</tr>
<tr>
<td><strong>RQ1</strong>: How will a higher conformity to traditional norms of femininity be related to non-disclosure of mental distress among women?</td>
<td>A higher conformity to traditional norms of femininity was associated with an increased likelihood for non-disclosure.</td>
</tr>
<tr>
<td><strong>H3a</strong>: The number of trusted interpersonal contacts will be negatively related to non-disclosure of mental distress.</td>
<td><strong>H3a</strong> was not supported.</td>
</tr>
<tr>
<td><strong>H3b</strong>: Closeness will be negatively related to non-disclosure of mental distress.</td>
<td><strong>H3b</strong> was only supported among men and only for emotional closeness.</td>
</tr>
<tr>
<td><strong>H3c</strong>: Frequency of communication will be negatively related to non-disclosure of mental distress.</td>
<td><strong>H3c</strong> was not supported.</td>
</tr>
<tr>
<td><strong>RQ2a</strong>: What are the individual level factors associated with non-disclosure of mental distress among (i) women and (ii) men?</td>
<td>For women, these are perceived loneliness and gender norms. For men, these are depressiveness, perceived loneliness, and gender norms.</td>
</tr>
<tr>
<td><strong>RQ2b</strong>: What are the relationship level factors associated with non-disclosure of mental distress among (i) women and (ii) men?</td>
<td>For women, there are none. For men, this is emotional closeness.</td>
</tr>
<tr>
<td><strong>RQ3</strong>: To what extent do men and women differ regarding their reasons for non-disclosure of mental distress?</td>
<td>Privacy concerns, and feelings of shame/self-blame, were rated higher by females than by males. The superficiality of relationships was rated higher by males than by females.</td>
</tr>
</tbody>
</table>

the importance of deconstructing and questioning traditional gender norms (Cleary, 2005; Petronio, 2002) as a barrier to the disclosure of mental distress. Our study suggests that this also holds true for women: Although traditional norms of femininity partly promote (emotional) disclosure, a higher belief in traditional gender norms among women was also associated with a higher tendency to non-disclosure. One possible explanation for this pattern might be that women who strongly adhere to traditional feminine norms may face conflicting pressures: the expectation to conform to societal ideals of emotional openness might be overwritten by a reluctance to deviate from the idealized (selfless) feminine image, particularly in the case of negative emotions/distress (Malacrida & Boulton, 2012). In the male subsample, moreover, depressiveness emerged as an additional factor associated with non-disclosure of
mental distress in the sense that higher levels of depressiveness were linked to an increased likelihood for non-disclosure. While previous studies also suggested this link (e.g., Garrison et al., 2012; Lee et al., 2017), we could merely show this for men – pointing towards gender differences that need to be examined more deeply. This suggests that already burdened men might be in particular danger of staying silent and thereby further straining their mental health.

Regarding the relationship level factors, it seems that the depth and closeness of a relationship are more important for men than for women, when it comes to (not) disclosing mental distress. A perceived lack of emotional closeness with the respective trusted contact was significantly related to non-disclosure in the male subsample, but not in the female subsample. This finding extends existing empirical research that did find an association between relationship closeness and non-disclosure but no gender differences in this regard (Reavley et al., 2018). The other relationships variables, i.e., number of contacts, frequency of communication, and physical closeness did not play a role for non-disclosure in either subsample.

Finally, regarding our third research goal, we found that men and women differed to a certain extent in the reasons they indicated for non-disclosure. The importance of relationship quality for men that we had already observed for the factors associated with non-disclosure, was also partly reflected in the reasons they indicated for non-disclosure of mental distress. Our findings showed that among those people who indicated to engage in non-disclosure of mental distress, men more often stipulated the superficiality of the relationship as a relevant reason than women did. Female participants, on the other hand, indicated privacy concerns and feelings of shame/ self-blame as more relevant reasons for non-disclosure than men.

Regarding the theoretical framework of our study, our findings underlined that many of the assumptions of the theoretical models were confirmed: For instance, a differentiation between individual and relational aspects proposed in the DD-MM appear to be futile, as our findings suggest. Moreover, key variables of the DD-MM, CPM and the GRCM, especially the conformity to traditional gender norms, but also relationship closeness emerged as prominent factors in our study. Finally, we found that gender does indeed play an important role when it comes to non-disclosure, as suggested by the CPM.

**Limitations and Future Research**

Of course, some limitations of our study have to be noted. While the logistic regression models suggest a unidirectional relationship, it is highly plausible that some of the variables have a reciprocal (or even opposite) relationship with non-disclosure. For instance, depressiveness may at the same time impact non-disclosure and be caused by it, potentially resulting in a downward spiral process. Given the rather small amount of explained variance in both subsamples, there appear to be other more important variables associated with non-disclosure. Further, we may not have captured all potential reasons for non-disclosure as our study employed an existing standardized measure derived from the context of HIV disclosure. Other prevalent reasons specific to mental distress may exist, which were not accounted for in our study. Qualitative research could be employed to explore them more extensively.

Finally, there might be similarities and differences in disclosure behaviour when compared to other health issues and also between countries and cultures, which we could not detect with our study design. Depending on the stigmatization of certain health issues and certain gender identity norms in a specific country, the results might differ significantly. Since many of the
disclosure studies stem from the context of (chronic) illness diagnosis, it might well be that the findings cannot be transferred to the context of everyday mental distress (and vice versa). Moreover, the (non-)disclosure of mental illness, for example, has been shown to depend on cultural norms (Wang et al., 2022). On a theoretical level, the CPM also emphasizes that the cultural aspects of privacy management need to be considered. An intercultural study design with multiple health issues could provide insights about issue- and culture-specific factors and reasons for disclosure. Moreover, we only focused on two genders – men and women – which does not sufficiently reflect the existing gender variety. Future research should aim at exploring the reasons for and factors associated with non-disclosure also for other gender identifications. In doing so, studies should also consider their discrimination and minority stress experiences as well as their perceptions of social norms since they likely impact their disclosure behaviour. Lastly, both masculine and feminine norms, communication norms, as well as ideas of mental health and illness are culturally diverse (Snell et al., 1989). Men in Germany might be especially, ashamed of disclosing mental problems or personal crisis. A recent content analysis, for example, indicates that German print media rather call a depression a burn-out disguising mental health problems instead of openly addressing them (Rechenberg et al., 2020). Future research should thus apply a combined culture- and gender-sensitive perspective to the topic. Despite these limitations, the findings of our survey still provide some valuable insights into men’s and women’s non-disclosure of mental distress.

Conclusion
The findings of our study increase knowledge on the factors linked to and reasons for non-disclosure among men and women and can hence inform mental health interventions and gender-sensitive communication campaigns aimed at improving mental health. Our findings suggest that focusing more on individual level factors in mental health campaigns can be advisable, as they were more important for non-disclosure of mental distress both among men and women. For instance, addressing and questioning traditional gender norms in communication campaigns could help fostering disclosure of mental distress, and thus potentially contribute to better mental health. One example for such an approach is the multimedia campaign “Man up” which encourages men to reflect on male stereotypes. The social media campaign succeeded in disseminating information and promoting conversations (Schlichthorst et al., 2018). This campaign idea was also implemented in the German context in 2022 (https://www.mann-was-geht.de/). Another example is the Twitter campaign ‘Boys Do Cry’, which achieved good reach and engagement about masculinity and suicide (Requena et al., 2023). Moreover, the relationship level factor emotional closeness, which we found in our results as a determinant for males’ disclosure, could apparently also be addressed in mental health interventions targeted specifically at men.

Thereby, our research also significantly contributes to the body of scientific studies on (non-)disclosure of mental distress: It underlines the need for gender-sensitive research, when it comes to non-disclosure, and points towards differences in men and women that need to be explored further. Additionally, it helps estimate the importance of individual- and relationship level factors for non-disclosure and can inspire future research to look deeper into this distinction. Moreover, it might encourage research to move beyond pathological contexts of the non-disclosure of (diagnosed) mental illnesses, and focus also on mental distress that can precede more serious mental health issues.
Finally, both in terms of scientific and practical implications, our study raises awareness for people who do not have any trusted contacts to talk to. Future studies should hence investigate the (non-)disclosure behaviour of this particular group more intensely and explore to what extent they might be in particular need of social support or intervention.

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Ethical Approval

All subjects gave their informed consent for inclusion before they participated in the study. The study was conducted in accordance with the European General Data Protection Regulation, and the protocol was approved by the Ethics Committee of Bielefeld University (No. 2021-194).

Funding

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Conflict of Interest

The authors have no conflict of interest to declare.

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Data collection: Anna Wagner

Data analysis: Anna Wagner & Doreen Reifegerste

Writing – original draft: Anna Wagner & Doreen Reifegerste

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