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Psychological distress, exhaustion, and work-related correlates among interpreters working in refugee care: results of a nationwide online survey in Germany

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ABSTRACT

Background: Due to language barriers, interpreters are crucial for refugee care in the countries of resettlement. However, interpreters are often faced with distressing working conditions, such as precarious work circumstances, lack of supervision, or exposure to their clients' traumatic experiences. Recent studies examining interpreters' mental health focussed primarily on secondary traumatic stress. The present study aimed to gain a better understanding of psychological distress and exhaustion among interpreters in refugee care by examining these factors in the work context as well as their possible work-related correlates.

Method: An online survey was carried out in Germany, which included several standardized questionnaires regarding distress, work- and client-related exhaustion, job satisfaction, and trauma exposure (BSI-18, CBI, JSS, HTQ, PCL-5). Interpreters were recruited primarily through psychosocial treatment centres and interpreter pools in Germany.

Results: In total, 164 interpreters were included in the analyses. The participants showed increased psychological distress, and around 7% screened positive for posttraumatic stress disorder (PTSD). In an exploratory regression analysis, younger age ($\beta = -.25$, $p = .004$) emerged as correlate of psychological distress, whereas dissatisfaction with payment ($\beta = -.21$, $p = .04$) and a higher amount of traumatic content ($\beta = .22$, $p = .001$) were associated with work-related exhaustion, and dissatisfaction with recognition was associated with client-related exhaustion ($\beta = -.35$, $p = .001$).

Conclusion: The results point to increased stress levels among interpreters for refugees. Moreover, they indicate that interpreters' distress is primarily correlated with work-related circumstances, thus suggesting the need for a greater work-related support structure for interpreters.

HIGHLIGHTS
- In a nationwide online survey in Germany, psychological distress, exhaustion, and their correlates were investigated among interpreters working in refugee care.
- Work-related variables and age were found to be correlates of psychological distress and exhaustion.

Malestar psicológico, agotamiento, y correlatos relacionados al trabajo entre los intérpretes que trabajan en la atención de refugiados: Resultados de una encuesta nacional en línea en Alemania

Antecedentes: Debido a las barreras del lenguaje, los intérpretes tienen un rol crucial en la atención de refugiados en los países que les proporcionan refugio. Sin embargo, los intérpretes se enfrentan a menudo con condiciones de trabajo estresantes, tales como circunstancias laborales precarias, carencia de supervisión, o exposición a las experiencias traumáticas de sus clientes. Estudios recientes que han examinado la salud mental de los intérpretes se centran principalmente en el estrés traumático secundario. El presente estudio busca ganar un mejor entendimiento del malestar psicológico y el agotamiento en los intérpretes en la atención de refugiados al examinar estos factores en el contexto laboral, así como sus posibles correlatos relacionados con el trabajo.

Método: Una encuesta en línea fue llevada a cabo en Alemania, la cual incluyó varios cuestionarios estandarizados relacionados a la angustia, al agotamiento relacionado con el trabajo y el cliente, satisfacción laboral, y exposición al trauma (BSI-18, CBI, JSS, HTQ, PCL-5, en sus siglas en inglés). Los intérpretes fueron reclutados principalmente a través de centros de tratamiento psicosocial y bases de datos de intérpretes en Alemania.

Resultados: En total, 164 intérpretes fueron incluidos en el análisis. Los participantes mostraron mayor malestar psicológico, y alrededor del 7% fueron identificados como positivos para el trastorno de estrés postraumático (TEPT). En un análisis de regresión exploratoria, la menor edad ($b = -.25$, $p = .004$) surgió como un correlato de malestar psicológico, mientras que la insatisfacción con el pago ($b = -.21$, $p = .04$), y una mayor cantidad de contenido traumático ($b = .22$, $p = .001$) se asociaron con agotamiento

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relacionado al trabajo, y la insatisfacción con el reconocimiento se asoció con agotamiento relacionado con el cliente ($b = -.35$, $p = .001$).

Conclusión: Los resultados apuntan a un aumento de los niveles de estrés entre los intérpretes de refugiados. Además, indican que la angustia de los intérpretes se correlaciona principalmente con las circunstancias relacionadas con el trabajo, lo que sugiere la necesidad de una mayor estructura de apoyo relacionado con el trabajo para los intérpretes.

从事难民护理工作的口译员的心理应激、疲惫和与工作相关因素：德国全国在线调查的结果

背景： 由于语言障碍，口译员对于安置国的难民护理至关重要。然而，口译员经常面临令人痛苦的工作条件，例如不稳定的工作环境、缺乏监督或暴露于客户的创伤经历。最近关于口译员心理健康的研究主要集中在继发性创伤应激上。本研究旨在通过考查工作环境中的这些因素及其可能的工作相关因素，更好地了解难民护理中口译员的心理困扰和疲惫。

方法： 在德国进行了一项在线调查，其中包括几份关于痛苦、工作和客户相关的疲惫、工作满意度和创伤暴露的标准化问卷（BSI-18、CBI、JSS、HTQ、PCL-5）。口译员主要通过德国的心理社会治疗中心和口译员池招募。

结果： 总共有 164 名口译员被纳入分析。参与者表现出增加的心理应激，大约 7% 的人被筛查出创伤后应激障碍（PTSD）呈阳性。在探索性回归分析中，年龄较小（$b = -.25$, $p = .004$）与心理困扰相关，而对付款不满意（$b = -.21$, $p = .04$）和更多的创伤内容（$b = .22$, $p = .001$）与工作相关疲惫相关，而对认可的不满与客户相关疲惫相关（$b = -.35$, $p = .001$）。

结论： 结果表明难民口译员的应激水平有所增加。此外，他们表明口译员的痛苦主要与工作相关情况相关，因此表明需要为口译员提供更大的与工作相关的支持结构。

1. Introduction

Interpreters play a crucial role for the adequate treatment and healthcare of refugees in non-native-speaking countries of resettlement (Böttche, Stammel, & Knaevelsrud, 2016), as the use of interpreters reduces communication errors and improves clinical outcomes (Fennig & Denov, 2021; Karliner, Jacobs, Chen, & Mutha, 2007). However, interpreters working in refugee care contexts frequently face difficult and precarious working conditions such as low payment or lack of training (Green, Sperlinger, & Carswell, 2012; Holmgren, Søndergaard, & Elklit, 2003; Splevins, Cohen, Joseph, Murray, & Bowley, 2010). Most interpreters have no access to supervision (Crezee, Jülich, & Hayward, 2013; Kindermann et al., 2017), despite the fact that due to the clients' trauma exposure, interpreters in refugee care often have to handle traumatic content (Doherty, MacIntyre, & Wyne, 2010; Splevins et al., 2010).

Previous qualitative research has indicated a wide range of emotional reactions among interpreters in refugee care, such as sadness, helplessness, and exhaustion (e.g. Crezee et al., 2013; Doherty et al., 2010). Quantitative research on psychological distress among interpreters is general still scarce (Geiling, Knaevelsrud, Böttche, & Stammel, 2021; Green et al., 2012). Previous studies focussed on rather work-related distress such as burnout or secondary traumatic stress (Birck, 2001; Kjellenberg, Nilsson, Daukantaité, & Cardeña, 2014; Shlesinger, 2005; Wichmann et al., 2018). To the best of our knowledge, only two quantitative studies have investigated psychological strain among interpreters working in refugee care (Kindermann et al., 2017; Teegen & Gönnenwein, 2002). The first study, consisting of a nationwide survey in Germany, found that interpreters have significantly fewer depressive symptoms compared to the general German population (Teegen & Gönnenwein, 2002). The second, more recent study revealed that interpreters working with refugee clients in a German city had significantly higher stress and anxiety levels compared to representative population samples (Kindermann et al., 2017). In the same study, volunteer interpreters showed significantly higher depression symptoms than did paid interpreters.

Two constructs referring to work-related psychological stress have been especially frequently studied among interpreters for refugees, i.e. secondary traumatic stress (STS) and compassion fatigue (CF) (Kindermann et al., 2017; Wichmann et al., 2018). Both constructs refer to the distress a person experiences as a consequence of exposure to another person's trauma (Sprang, Ford, Kerig, & Bride, 2019), e.g. by translating or listening to an account of the trauma. STS comprises symptoms such as intrusive thoughts related to the trauma of another person, depression, or concentration difficulties (Daniels, Manthey, & Nikendei, 2017; Sprang et al., 2019). CF has been conceptualized as a combination of STS and burnout (Stamm, 2010). In this theoretical framework, burnout, as a negative consequence of caring, includes various symptoms such as exhaustion, frustration, and depression.

In particular, qualitative studies have often reported work-related exhaustion or distress among interpreters in refugee care (e.g. Crezee et al., 2013; Doherty et al., 2010; Holmgren et al., 2003). From a quantitative perspective, however, burnout among interpreters has only been examined as part of CF, within the respective

subscale of the Professional Quality of Life Questionnaire (ProQol; Stamm, 2010). This subscale has not shown evidence of satisfactory construct validity (Heritage, Rees, & Hegney, 2018), and exhaustion as a consequence of interpreting and working with clients may therefore not have been sufficiently captured by the applied questionnaire.

The literature has also addressed the fact that some interpreters have themselves fled and experienced traumatic events (Green et al., 2012; Kindermann et al., 2017). Qualitative research indicates that interpreters are especially stressed if they interpret similar war and flight experiences to their own (Crezee et al., 2013; Doherty et al., 2010; Green et al., 2012). Quantitative studies have not yet specifically addressed war- and refugee-related trauma among interpreters. Furthermore, the trauma experience has not been examined in relation to interpreters' psychological distress.

Taken together, studies examining interpreter's mental health in refugees' care have mostly been qualitative in nature and have included small or heterogeneous samples with different employment situations. Moreover, the small number of quantitative studies have shown a number of limitations (e.g. sole focus on STS, mixed sample of paid and voluntary interpreters). Work-related aspects such as workload, frequency of supervision, or job satisfaction have not yet been investigated in association with psychological distress. Therefore, the present study sought to (1) examine the level of psychological distress, exhaustion, flight- and war-related trauma experiences, and rates of PTSD among interpreters in refugee care, and (2) identify correlates (i.e. sociodemographic characteristics, own trauma and refugee-specific, work-related circumstances) of psychological distress and exhaustion.

2. Methods

2.1. Data collection and study sample

A Germany-wide anonymous online survey was conducted using the online survey platform Unipark (*Questback GmbH. Published 2017. EFS Survey, Version Summer 2017. Köln: Questback GmbH*). The study comprised two measurement time points, of which only the results of the first are reported here. To achieve the largest possible sample size, all participants who took part at both time points received a 25 Euro voucher. The first author reached out to 44 psychosocial centres for refugees of the BAfF (German Association of Psychosocial Centres for Refugees and Victims of Torture), which is an umbrella organization for psychosocial treatment centres for victims of human rights violations and political persecution. In addition, further psychosocial centres for refugees

were contacted, as well as refugee care organizations, clinics working with interpreters, and interpreter pools (e.g. community interpreter services) in Germany. Institutions were contacted by telephone and/or email. Inclusion criteria for participating in the study were (1) age ≥ 18 years and (2) being paid for interpreting spoken languages for refugee clients. Interpreters could participate in the survey between April 2019 and July 2019. Before answering the survey questions, participants were informed about the study and provided consent. The study was approved by the ethics committee of the of the Freie Universität Berlin, Germany, (224/2019).

Overall, 291 participants gave their consent to participate. Only after the participants had agreed to participate did the data collection begin. A further 34 participants were excluded as they did not create a pseudonym and were therefore not forwarded to the next page of the survey, and 19 participants dropped out from the following page (sociodemographic variables). Further 55 participants dropped out over the course of the survey with an average of 2.89 participants dropping out per page. Overall, 183 interpreters (63% of the 291 who gave their consent) completed the whole survey. From the final analyses, 11 participants were excluded because they did not fulfil the inclusion criterion of being a paid interpreter, and eight participants were excluded because their participation behaviour and email address indicated repeated participation by the same person. Therefore, the final sample included $n = 164$ participants.

2.2. Instruments

Sociodemographic questions. Sociodemographic questions included age, gender, country of origin, marital status, number of years of education, highest level of education, and flight experience ('Have you ever fled or been displaced?'). Participants were asked if they had a degree in interpreting (no/yes, at a university or college) and if they had received any kind of training regarding their job as an interpreter for refugees (no/yes).

Questions related to interpreting in the main work setting. Interpreters were asked to choose one of the five following settings in which they currently interpret for the greatest amount of time: (1) psychotherapy, (2) psychosocial counselling (i.e. drug counselling, family counselling), (3) medical setting (i.e. hospital or doctor's office), (4) authorities (i.e. *German Federal Office for Migration and Refugees*), court, police, social services, agency for work, job centre, (5) other setting (please name).

All of the subsequent work-related questions referred to the main work setting chosen. These included questions regarding participants' weekly workload ('How many hours a week on average do

you work in this setting?' − 1–10 hrs; 11–20 hrs; 21–30 hrs; 31–40 hrs; more than 40 hrs) and the amount of interpreted traumatic content per week ('How much traumatic content in percent do you interpret on average per week?' – 0%; 10%; 20%; 30%; 40%; 50%; 60%; 70%; 80%; 90%; 100%). Participants were also asked about their type of employment (freelancer, employed, both), their work experience in years, and the frequency of supervision (never, less than once every 6 months, every 6 months, every 3 months, once a month, more than once a month).

Psychological Distress. The Brief Symptom Inventory (BSI-18; Derogatis, 2000) was applied to measure psychological distress, which was the primary outcome of interest. The questionnaire consists of 18 items, with six items for each of the three subscales (anxiety, depression, and somatization). Items are rated on a 5-point Likert scale (0 = 'not at all' to 4 = 'extremely'), with higher scores indicating higher distress. The items of each scale can be added up to a sum score (0–24). Furthermore, the sum of all scales together represents the General Severity Index (GSI; 0–72). Norms are available for a German representative population (Franke et al., 2017). Internal consistencies were calculated for all scales in the present study: anxiety: α = .83, depression: α = .83, somatization: α = .76, and GSI: α = .90.

Work- and client-related exhaustion. Two of three subscales of the Copenhagen Burnout Inventory (CBI, Kristensen, Borritz, Villadsen, & Christensen, 2005) were applied to assess work- and client-related exhaustion. This questionnaire captures fatigue and exhaustion as a consequence of work. The CBI contains 19 items rated on a 5-point Likert scale and comprises three subscales measuring different areas of exhaustion (personal, work-related, and client-related exhaustion). In the present analysis, we used the latter two subscales. The subscale regarding work-related exhaustion covers seven items referring to the exhaustion a person associates with his/her work (e.g. 'Do you feel worn out at the end of the working day?'). Client-related exhaustion comprises six items referring to the exhaustion a person experiences as a consequence of his/her work with clients (e.g. 'Does it drain your energy to work with clients?'). Items are rated on a 5-point Likert scale ranging from 'never/almost never' or 'to a very low degree' to 'always' or 'to a very high degree' (for scoring purposes: 0, 25, 50, 75, 100), a mean for each subscale is calculated. The subscales showed the following internal consistencies in the current study: work-related exhaustion: α = .86, client-related exhaustion: α = .87.

Job Satisfaction. The Job Satisfaction Survey (JSS, Spector, 1985) was used to measure satisfaction with pay and contingent reward. The JSS consists of a total of nine subscales containing four items each, of which we used two subscales in the present study.

The perceived satisfaction with pay and remuneration possibilities at work was measured with the subscale 'pay'. Example items are 'I feel I am being paid a fair amount for the work I do' or 'raises are too few and far between'. The scale 'contingent rewards' comprises items regarding appreciation, recognition, and rewards for good work (e.g. 'When I do a good job, I receive the recognition for it that I should receive.'). The participants were asked to refer to their main work setting in their responses. Items from both subscales are rated a 6-point Likert scale (1 = disagree very much to 6 = agree very much), with the sum of items for each subscale representing the sum score (4-24). The JSS is widely used and internal consistencies were calculated for the current study (pay: α = .78, contingent reward: α = .78). Comparison scores are available online (Spector, 2021) for different professional groups in several countries.

The JSS and CBI were translated from English into German by the first author and back-translated by a second researcher as no German version was available. Any disagreements were resolved by discussion between the two researchers.

Trauma exposure and PTSD. Trauma exposure was assessed using a stepwise approach. First, the Primary Care PTSD Screen for DSM-5 (PC-PTSD-5; Prins et al., 2016) was applied which asks whether one has ever experienced a traumatic event. If a participant answered yes to this item, he/she was directed to the first part of the Harvard Trauma Questionnaire (HTQ; Mollica et al., 1992) and the Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5; Weathers et al., 2013). Only the first part of the HTQ was used to explore possible traumatic events. The HTQ has been interculturally validated and the first part showed a reliability of α = .90. To assess PTSD symptoms, we applied the PCL-5. The PCL-5 consists of 20 items rated on a 5-point Likert scale ranging from 0 (not at all) to 4 (extremely), and with an internal consistency of α = .93 in the present sample. The scale measures symptom severity (0–80) and is indicative of a possible diagnosis of PTSD according to the DSM-5 criteria (Weathers et al., 2013).

2.3. Statistical analysis

Characteristics of interpreters were analysed descriptively. One sample t-tests were conducted to compare the means of the BSI-18 regarding psychological distress to a representative sample of the German population. Correlates were investigated in two steps and are referred to here as variables that correlate with psychological stress and exhaustion or served as independent variables in the regression analyses. First, correlations were assessed using Spearman's rho for non-normally distributed continuous variables and point-biserial correlations for dichotomous variables.

According to Cohen (1988), correlation effect sizes of .10 are described as small, .30 as medium and .5 as large. In a second step, exploratory multiple hierarchical stepwise regression analyses were conducted to investigate possible sociodemographic and workplace-specific correlates of psychological distress (BSI-18) and exhaustion. Due to the exploratory nature of these analyses and the lack of knowledge regarding relations between psychological distress and working conditions, variables were included as independent variables in the regression analysis if they significantly correlated with the outcome variable in the correlation analysis and all the analyses were not corrected for the alpha level. *P*-values are reported for all independent variables in the regression analyses. There was no indication of multicollinearity due to the variance inflation factor. Regarding the regression analyses with work- and client-related exhaustion as outcome, the Pagan–Breusch test indicated heteroskedasticity, and the Huber-White estimator of standard errors was therefore applied for these regression analyses using the package '*sandwich*' (Zeileis, 2004; Zeileis, Köll, & Graham, 2020) and '*lmtest*' (Zeileis & Hothorn, 2002) in R. All statistical analyses were conducted using R version 4.1.0 (R Core Team, 2021).

3. Results

3.1. Sample description, characteristics of interpreting work and psychopathology

Sociodemographic characteristics are displayed in Table 1. Participants originated from 43 different countries (supplementary material), with the highest numbers being from Germany (21%), Iran (11%) and Syria (9%). The mean age was 39 years (SD = 12.35, range: 18–71) and the majority of participants were female (70.1%). On average, participants reported 17 years of education (SD = 3.42, range: 6–26). About a quarter of the sample had fled or been displaced themselves.

Only 15% of the sample had completed education as an interpreter at a university or college, but over 64% had completed training as an interpreter for refugee clients (Table 1). Most interpreters reported 'authorities' as their main work setting. On average, the interpreters had five years of work experience in their main work setting (Range: 0–30). The majority worked 1–10 hours in their main work setting, and 66% worked as freelance interpreters. Across all main settings, on average, participants reported that the proportion of interpreted traumatic content in sessions lay at 35% (Range = 0–100). Almost half of the participants indicated that they had never had supervision in their main work setting.

The descriptive results regarding the psychopathological questionnaires are displayed in Table 2. The

GSI, anxiety, depression and somatization values were significantly higher than in a representative German population (Table 2; Franke et al., 2017).

Approximately half of the total sample (51%, *n* = 83) indicated that they had experienced at least one traumatic event based on the screening instrument PC-PTSD-5. According to the HTQ trauma checklist, on average, these participants (*n* = 83) had experienced M = 2.89 different potentially traumatic events (SD = 3.3, Range: 0–15). The most frequently mentioned self-experienced traumatic events were forced separation (31%, *n* = 26), unnatural death (30%, *n* = 25) and being close to death (26%, *n* = 22) (supplementary material). Results from the whole sample indicated that approximately 7% (*n* = 12) of the participants screened positive for PTSD according to the DSM-5 criteria. Among the participants who had experienced at least one traumatic event in their lives (*n* = 83), the mean level of PTSD symptom severity lay at M = 16.28 (SD = 13.11, Range: 0–54).

3.2. Correlates of distress and exhaustion

Correlations between sociodemographic variables, interpreter-specific variables and the applied questionnaires are displayed in Table 3. Overall, mostly small correlation coefficients were found for workplace-specific variables. Psychological distress, work-related exhaustion and client-related exhaustion were negatively correlated with having a degree in interpreting, meaning that interpreters without a professional education showed significantly higher distress than interpreters with a professional education. However, being trained to work as an interpreter did not correlate with psychological distress or exhaustion. For ease of interpretation, supervision was dummy-coded into a binary variable (0 = never having had supervision, 1 = have supervision: less than once every six months, every six months, every three months, once a month, more than once a month). Having supervision was related to lower general distress ($r = -.23$, $p < .01$) and lower work-related exhaustion ($r = -.19$, $p < .05$).

The results of the three regression analyses are shown in Tables 4 and 5. Variables were entered into the regression analysis if they correlated significantly with the outcome variable. To test the incremental difference in the explanatory variance between the variables, for every outcome (i.e. distress, work-related exhaustion and client-related exhaustion), variables were added to the model in the following four steps: 1) sociodemographic variables, 2) interpreter education and experience-related variables, 3) variables related to working conditions in the main work setting, and 4) variables related to job satisfaction regarding the main work setting.

For the outcome distress, eight variables were entered into the regression analyses in four steps.

Table 1. Sociodemographic and workplace-specific characteristics regarding the main work setting.

Sample characteristic	n	%	M	SD	Mdn	IQR
Sociodemographic Variables						
Gender: Female	115	70.1%	–	–		
Age	–	–	38.84	12.35	38	21
Marital status						
Single	70	42.7%	–	–		
In a relationship	16	9.8%	–	–		
Married	58	35.4%	–	–		
Divorced	13	7.9%	–	–		
Widowed	3	1.8%	–	–		
Other	4	2.4%	–	–		
Years of education	–	–	16.80	3.42	17	4
Highest professional education/degree						
No professional education	23	14.0%	–	–		
Completed apprenticeship or comparable qualification	27	16.5%	–	–		
Bachelor	54	32.9%	–	–		
Master craftsman or comparable qualification	3	1.8%	–	–		
Diploma/Master/State examination	51	31.1%	–	–		
PhD or higher degree	6	3.7%	–	–		
Ever fled or displaced	45	27.4%	–	–		
Ever experienced a trauma (PC-PTSD-5)	83	50.6%	–	–		
Degree in interpreting (university or college)	24	14.6%	–	–		
Training for interpreting for refugees	110	67.1%	–	–		
Main work setting						
Psychotherapy	38	23.2%				
Authorities	59	36.0%				
Medical	22	13.4%				
Counselling	39	23.8%				
Other Setting	6	3.7%				
Interpreter-specific work variables related to the main work setting						
Work experience in years			5.17	5.97	3	3.25
Employment situation						
Freelancer	108	65.9%				
Employed	37	22.6%				
Both	19	11.6%				
Weekly working hours						
1–10 h	114	69.5%				
11–20 h	18	11.0%				
21–30 h	12	7.3%				
31–40 h	19	11.6%				
>40 h	1	0.6%				
Traumatic content in sessions in %			34.94	28.70	20	50
Frequency of supervision						
Never	78	47.6%				
Less than once every 6 months	36	22.0%				
Every 6 months	29	17.7%				
Every 3 months	11	6.7%				
Once a month	7	4.3%				
More than once a month	3	1.8%				

Table 2. Descriptive statistics of the psychopathology and work-related variables ($n = 164$).

	M	SD	Range	Mdn	IQR	M (SD) representative sample [a]	t(163)
BSI-18 GSI	9.02	9.07	0–43	6	11	4.66 (7.44)[a]	6.1546***
BSI-18 – depression	3.74	4.15	0–18	2.5	5.25	1.76 (3.23)[a]	6.1049***
BSI-18 – anxiety	3.01	3.32	0–17	2	3	1.44 (2.59)[a]	6.0555***
BSI-18 – somatization	2.27	2.94	0–15	1	3.25	1.46 (2.58)[a]	3.5192***
CBI – work-related exhaustion	25.78	18.31	0–93	23.32	28.57	–	–
CBI – client-related exhaustion	21.06	19.14	0–96	16.67	29.17	–	–
JSS – contingency reward	16.05	4.49	4–24	16	7	–	–
JSS – pay	13.65	4.84	4–24	13.5	7	–	–

Note. *$p < .05$. **$p < .01$. ***$p < .001$. BSI-18 GSI: Brief Symptom Inventory-18 General Severity Index; CBI: Copenhagen Burnout Questionnaire; JSS: Job Satisfaction Survey [a] representative survey from Franke et al. (2017).

Younger age emerged as significant correlate throughout all steps. The third model additionally indicated lack of supervision as a significant correlate of distress ($\beta = -.15$, $p < .045$) and accounted for 15% of the variance. In the final step, only age was significantly associated with distress (Table 4). However, the increase in R² from model 3–4 was not significant.

With regard to work-related exhaustion, six variables were entered into the regression analysis in four steps (Table 5). Age was significantly associated with work-related exhaustion only in the first step. When added to the model, interpreter education was significantly associated with work-related exhaustion, but was no longer significant once job satisfaction was entered in the next step. Moreover, compared to the previous steps, the highest amount of variance was explained by adding satisfaction with recognition and pay ($\Delta R^2 = .14$) in the final step, with a total $R^2 =$

Table 3. Correlations of sociodemographic, work-specific and psychopathological variables (n = 164).

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Female gender [a]														
2 Age [b]	−0.02													
3 Flight [a]	−0.19*	0.10												
4 Trauma [a]	−0.03	−0.05	0.21**											
5 Interpreter education [a]	−0.11	0.22**	−0.18*	−0.14										
6 Training [a]	0.05	0.06	−0.11	−0.03	0.07									
7 Work experience [b]	0.00	0.57***	0.17*	−0.13	0.16*	0.06								
8 Weekly working hours [b]	−0.19*	0.20**	−0.02	−0.15*	0.38***	0.23**	0.22**							
9 Traumatic content [b]	0.05	−0.07	0.05	0.15*	−0.11	0.20**	−0.03	0.12						
10 Supervision [a]	−0.10	0.10	−0.13	−0.11	0.23**	0.17*	−0.02	0.21**	−0.01					
11 BSI-18 GSI [b]	0.07	−0.36***	−0.02	0.19*	−0.27***	−0.04	−0.17*	−0.13	0.15*	−0.24**				
12 CBI – work [b]	−0.03	−0.17*	0.05	0.12	−0.29***	−0.04	−0.08	−0.09	0.24**	−0.19*	0.60***			
13 CBI – client [b]	−0.14	−0.19*	0.09	0.01	−0.23**	−0.09	0.01	−0.10	0.12	−0.14	0.42***	0.65***		
14 JSS – reward [b]	0.00	0.08	−0.07	−0.13	0.19**	0.11	0.08	0.22**	0.02	0.10	−0.18*	−0.37***	−0.48***	
15 JSS – pay [b]	−0.04	−0.10	−0.01	−0.10	0.15	0.03	−0.06	0.18*	0.02	0.09	−0.17*	−0.37***	−0.36***	0.67***

Note. *p < .05. **p < .01. ***p < .001. Gender: 0 = male, 1 = female; Flight: 0 = no, 1 = yes; Trauma exposure to trauma according to the PC-PTSD-5: 0 = no, 1 = yes; interpreter education: 0 = no degree in interpreting, 1 = degree in interpreting; training: 0 = no training; 1 = ever completed training for interpreting for refugee clients; supervision: 0 = never had supervision, 1 = have supervision (less than once every 6 months, every 6 months, every 3 months, once a month, more than once a month) BSI-18 GSI: Brief Symptom Inventory-18 General Severity Index; CBI: Copenhagen Burnout Questionnaire, work = work-related exhaustion, client = client-related exhaustion; JSS: Job Satisfaction Survey, reward = contingency reward; [a] point-biserial correlation; [b] Spearman rank correlation.

28%. The final model therefore indicated that amount of traumatic content ($\beta = −.22$, $p = .001$) and satisfaction with payment ($\beta = −.21$, $p = .04$) were significantly associated with work-related exhaustion. In every step, the change in R^2 was significant.

For the regression analyses regarding client-related exhaustion, four variables were included in the regression analysis (Table 5). The increase in R^2 was only significant in the third and final step, when satisfaction with recognition and pay were added. Moreover, only satisfaction with recognition emerged as a significant correlate of client-related exhaustion ($\beta = −.35$, $p = .001$). This model explained 21% of the variance.

4. Discussion

This cross-sectional study explored distress and exhaustion of interpreters in refugee care in Germany and sought to identify possible correlates. Overall, the sample showed increased levels of psychological distress. Approximately a quarter of the participants had experienced war and flight themselves. In particular, work-related factors and younger age were associated with distress and exhaustion.

4.1. Psychological strain and job satisfaction among interpreters for refugees

According to our findings, the interpreters in the present study showed significantly higher psychological distress on the BSI-18 overall and on all of its subscales (anxiety, depression, and somatization) as compared to a representative German sample (Franke et al., 2017).

In contrast to previous studies, the current study sought to identify whether interpreters may themselves have traumatic experiences in the context of war and flight. Indeed, up to a quarter of the sample had experienced war- and flight-related trauma such as combat situations or forced separation. The PTSD rate of 7% in the whole sample was higher than in a representative German sample (2.4%, Eichhorn, Brähler, Franz, Friedrich, & Glaesmer, 2014) and comparable to a recent study with interpreters in Germany (9%, Kindermann et al., 2017).

The present study also applied work-related questionnaires (exhaustion and facets of job satisfaction) to interpreters working with refugee clients. To the best of our knowledge, there are no comparable studies examining the CBI and the JSS in German interpreter samples that could provide a meaningful comparison for our findings. As such, we believe that the present study is the first to apply these measures to a sample of interpreters in Germany. The participants showed lower work- and client-related exhaustion compared to the average values from a Danish sample, which included several

Table 4. Hierarchical regression for psychological distress (BSI-18).

Variable	B	SE B	β	p
Step 1[a]				
Constant	15.81	2.38		<.001
Age	−0.21	0.05	−.28***	<.001
Trauma	2.36	1.35	.13	.08
Step 2[b]				
Constant	15.96	2.42		<.001
Age	−0.20	0.06	−.28**	.002
Trauma	2.11	1.37	.12	.12
Interpreter education	−3.42	1.97	−.13	.08
Work experience[e]	0.07	0.13	.04	.61
Step 3[c]				
Constant	15.67	2.59		<.001
Age	−0.18	0.06	−.25**	.004
Trauma	1.52	1.37	.08	.27
Interpreter education	−2.33	1.99	−.09	.24
Work experience[e]	0.03	0.13	.02	.81
Traumatic content[e]	0.04	0.02	.13	.10
Supervision[e]	−2.77	1.38	−.15*	.04
Step 4[d]				
Constant	20.62	3.49		<.001
Age	−0.19	0.06	−.25**	.003
Trauma	1.11	1.37	.06	.42
Interpreter education	−1.48	2.01	−.06	.46
Work experience[e]	0.02	0.13	.01	.88
Traumatic content[e]	0.04	0.02	.14	.07
Supervision[e]	−2.64	1.37	−.15	.06
Satisfaction with pay[e]	−0.27	0.20	−.14	.17
Satisfaction with recognition[e]	−0.06	0.21	−.05	.78

Note. *$p < .05$. **$p < .01$. ***$p < .001$; Trauma exposure (PC-PTSD-5): 0 = no, 1 = yes; interpreter education: 0 = no degree in interpreting, 1 = degree in interpreting; supervision: 0 = never had supervision, 1 = have supervision (less than once every 6 months, every 6 months year, every 3 months, once a month, more than once a month) [a]$R^2 = .10$, $p < .001$ [b]$\Delta R^2 = .02$, $p = .18$ [c]$\Delta R^2 = .03$, $p = .04$ [d]$\Delta R^2 = .03$, $p = .09$; [e]in main work setting.

Becher, 2016) and lower burnout levels for interpreters than for therapists (Birck, 2001). However, the measurement of burnout in this framework must be interpreted with caution due to the psychometric characteristics of the corresponding questionnaire (Roberts, Teague, Lee, & Rushworth, 2021). Furthermore, the interpreters in the present study reported slightly higher levels of satisfaction with pay and contingent rewards than did mental health workers in the US (Spector, 2021).

Overall, the results regarding psychological distress contribute to previous qualitative and quantitative findings (e.g. Doherty et al., 2010; Kindermann et al., 2017). However, the results regarding exhaustion and job satisfaction revealed that compared to other professions, the interpreters in our sample had lower levels of work- or client-related exhaustion and, on average, high satisfaction with their work. One possible reason for this might be that most interpreters reported working up to 10 hours per week in their main work setting, which could have prevented high levels of exhaustion. As job satisfaction was explored for the main work setting, it might be the case that interpreters spent the greatest proportion of time in this main work setting because they found the working conditions to be satisfactory.

4.2. Correlates of psychological distress and exhaustion

The regression analyses revealed that age was the only significant correlate of psychological distress in the present sample. Traumatic content and satisfaction with pay emerged as significant correlates of work-

professions in social care and psychiatric and medical contexts (e.g. social workers, nurses, administrative staff, doctors) (Kristensen et al., 2005). Two studies investigating burnout according to the definition of Stamm (2010), found average high burnout levels among interpreters for traumatized clients (Mehus &

Table 5. Hierarchical regression for work-related and client-related exhaustion.

	Work-related exhaustion					Client-related exhaustion			
Variable	B	SE B	β	p	Variable	B	SE B	β	p
Step 1[a]					**Step 1[e]**				
Constant	35.34	4.14		<.001	Constant	29.64	4.35		<.001
Age	−0.25	0.10	−.16*	.01	Age	−0.22	0.11	−.13	0.06
Step 2[b]					**Step 2[f]**				
Constant	34.39	4.15		<.001	Constant	28.45	4.37		<.001
Age	−0.18	0.10	−.12	0.08	Age	−0.16	0.11	−.10	0.15
Interpreter education	−11.49	4.08	−.22**	0.01	Interpreter education	−7.44	4.55	−.14	0.10
Step 3[c]					**Step 3[g]**				
Constant	31.24	4.69		<.001	Constant	56.29	6.54		<.001
Age	−0.15	0.10	−.10	0.11	Age	−0.15	0.11	−.10	0.19
Interpreter education	−8.52	3.95	−.16*	0.03	Interpreter education	−2.87	4.04	−.05	0.48
Traumatic content[h]	0.13	0.04	.21**	<.01	Satisfaction with pay[h]	−0.36	0.40	−.09	0.37
Supervision[h]	−5.40	2.89	−.15	0.06	Satisfaction with[h] recognition	−1.50	0.46	−.35**	.001
Step 4[d]									
Constant	55.31	6.33		<.001					
Age	−0.17	0.09	−.11	0.07					
Interpreter education	−4.26	3.16	−.08	0.18					
Traumatic content[h]	0.14	0.04	.22**	<.01					
Supervision[h]	−4.55	2.54	−.12	0.07					
Satisfaction with pay[h]	−0.81	0.38	−.21*	0.04					
Satisfaction with recognition[h]	−0.86	0.44	−.21	0.05					

Note. *$p < .05$. **$p < .01$. ***$p < .001$; interpreter education: 0 = no degree in interpreting, 1 = degree in interpreting; supervision: 0 = never had supervision, 1 = have supervision (less than once every 6 months, every 6 months, every 3 months, once a month, more than once a month) [a]$R^2 = .03$, $p < .05$ [b]$\Delta R^2 = .04$, $p = .008$ [c]$\Delta R^2 = .07$, $p = .002$ [d]$\Delta R^2 = .14$, $p < .001$ [e]$R^2 = .02$, $p < .05$ [f]$\Delta R^2 = .02$, $p = .12$ [g]$\Delta R^2 = .17$, $p < .001$ [h]in main work setting.

related exhaustion, whereas satisfaction with recognition was the only significant correlate of client-related exhaustion.

In the regression analyses for psychological distress, age emerged as significant correlate in all steps. This is in line with a meta-analysis that demonstrated a significant negative correlation between age and emotional exhaustion among mental health professionals (Lim, Kim, Kim, Yang, & Lee, 2010). The authors suggested that accumulating life experience and emotional maturity may serve as a coping strategy. Until job satisfaction was included in the regression analysis, lack of supervision was found to be a correlate of higher psychological distress among interpreters, possibly indicating that lack of supervision might be a risk factor for psychological distress. For German psychotherapists in training, supervision by a trained psychotherapist is a mandatory part within their training and includes techniques such as role plays, case report and the use of videotapes of sessions for direct feedback (Weck, Kaufmann, & Witthöft, 2017). Additionally, it is relevant for growing own expertise and competencies in any stage of practicing psychotherapy (Kühne, Maas, Wiesenthal, & Weck, 2019). In the context of the work with refugees, supervision may help for example to acknowledge the external restrictions due to political decisions and express feelings of frustration in a safe space (Apostolidou & Schweitzer, 2015). Overall, this finding would support interpreters' suggestions for more supervision, as reported in quantitative (Kindermann et al., 2017; Wichmann et al., 2018) and qualitative studies (Crezee et al., 2013; Doherty et al., 2010; Holmgren et al., 2003). It is also in accordance with a recent scoping review, which recommended a systemic change regarding supervision for interpreters, for instance by only permitting institutions to hire interpreters if supervision is also embedded (Fennig & Denov, 2021).

Interestingly, work experience in the main work setting was significantly correlated with psychological distress. However, it did not emerge as a significant correlate in the regression analysis for psychological distress. Nevertheless, it has to be considered that the distribution regarding work experience in the main setting was highly skewed, as the vast majority of interpreters had up to five years of work experience in the main setting.

Work-related exhaustion was found to be significantly associated with a higher amount of interpreted traumatic content. Similar findings were also reported in qualitative studies, in which participants stated, for example, that traumatic content was too much to handle (Green et al., 2012), was very demanding (Doherty et al., 2010) or made it impossible to switch off (Splevins et al., 2010). Likewise, in previous studies, interpreters have stressed the impact of the traumatic content and suggested preparatory training to learn more about PTSD and how to cope with interpreted traumatic content (e.g. Crezee et al., 2013; Miller, Martell, Pazdirek, Caruth, & Lopez, 2005). Although work-related exhaustion was significantly correlated with having a degree in interpreting in the current study, in the regression analyses, it was only associated with work-related exhaustion until satisfaction with pay and recognition were entered into the model. Furthermore, work-related exhaustion was associated with satisfaction with payment. The organization and funding of interpreters generally seems to be difficult and was addressed in several countries (Böttche et al., 2016; Fennig & Denov, 2021; Jaeger, Pellaud, Laville, & Klauser, 2019). Currently, there is no regulated funding for interpreters in the German healthcare system (Schouler-Ocak, 2015), which probably contributes to low fees for interpreters.

Client-related exhaustion was correlated with having a degree in interpreting and with dissatisfaction with payment and recognition. In the final step of the regression analyses of client-related exhaustion, only dissatisfaction with recognition emerged as a correlate. Qualitative studies have revealed that refugee clients are perceived as having high expectations of the interpreters in terms of their ability to help them (e.g. Resera, Tribe, & Lane, 2015) and that professionals are perceived as showing less recognition or even disrespect for the interpreters (Green et al., 2012; Holmgren et al., 2003). Altogether, this situation might therefore contribute to dissatisfaction and exhaustion, and underscores the relevance of recognition in terms of pay and appreciation of interpreters. Compared to, for example, psychotherapists or medical staff who are not only trained for this work but also employed and thus embedded in team structures, this is often an unusually difficult situation for interpreters, which needs to be recognized more (Hassan & Blackwood, 2021).

Overall, the regression analyses showed that satisfaction with recognition and pay, and the amount of interpreted traumatic content correlated only with work- and client-related exhaustion, and not with psychological distress. This suggests that these variables were especially related to work-related exhaustion but might perhaps not be associated with psychological distress overall. Furthermore, there was no significant correlation between training and psychological distress or exhaustion, whereas having an interpreting degree was associated with less psychological distress and exhaustion. Interpreters who have studied may be better prepared for the job in terms of interpreting techniques or professional ethics, and may therefore experience less distress. Compared to having a degree in interpreting, the question referring to training might not have been sufficiently specific, as the prevention of distress may be dependent on the duration and intensity of

training. However, this also reflects the very heterogeneous training situation for interpreters in Germany: There is still no nationwide agreement on the duration and content of (preparatory) training for interpreters without an interpreting degree (Kluge, 2020). Future studies may ask more precisely for the extent of training completed in order to gain a better overview of the training programmes offered to interpreters and their potential buffering effect on work-related distress.

Taken together, the results give a first impression of the relationships of psychological distress and symptoms of exhaustion and possible associated working conditions in interpreters working in refugee settings. Though the analyses were conducted at a very exploratory level, they in general support previous studies and reviews (Fennig & Denov, 2021; Kindermann et al., 2017). The results indicate that offering supervision and preparatory training for interpreters (e.g. by employers and interpreter agencies) might be helpful to cope with the exhausting consequences of traumatic content. This would however depend heavily on the need for sustainable financial regulations in refugee care to enable organizations to provide better pay for their interpreters and improve their working conditions.

4.3. Limitations

Some limitations of the present study should be mentioned. In order to achieve a large sample size, we recruited a convenience sample, which is therefore not a representative sample of interpreters in Germany. The choice of an anonymous online survey entails the risk that some individuals who do not belong to the target population may have participated. However, to mitigate this risk, we carefully selected the locations for advertising the study. Additionally, we asked some indicative questions (e.g. regarding the employment situation) and closely monitored the participation process. As the study was only promoted through contact persons in the various organizations and was never forwarded directly to interpreters, it is unclear how intensively the study was advertised and forwarded, and to how many potential participants. As such, we cannot be certain what kind of institutions the interpreters came from and how many different institutions they represented. Furthermore, as the online survey took about 30–45 minutes to complete, some participants may have dropped out due to tiredness, or it is likely that only very committed interpreters completed the survey. Overall, however, a reasonably large sample was reached and the dropout rate was relatively low. Most of the work-related variables specific to interpreting referred to the work setting in which interpreters currently spent the greatest amount of time. Therefore, other work settings and their associated work conditions, which may, for example, be perceived as more stressful than the main work setting, were not considered. Lastly, the data are based on a cross-sectional design and the variables were included in the regression analyses due to their significant correlation with the outcomes. The selection of variables for the regression analyses thus might have introduced bias. Additionally, the regression analyses for work- and client-related exhaustion showed heteroskedasticity. The regression analyses were thus exploratory in nature and the findings should be interpreted with caution.

4.4. Conclusions and implications

The present study examined psychological strain and work-related correlates in a large sample of interpreters in Germany, and revealed increased psychological distress in this group. Younger age, workplace-specific factors and facets of job satisfaction were identified as correlates of psychological distress and exhaustion in exploratory regression analyses. The findings thus underpin calls for improved structural regulations and support structures for interpreters in general, such as independent paid supervision, preparatory training, and the possibility for peer support, in order to reduce work-related distress for interpreters and foster an appreciative working atmosphere.

Nevertheless, there is a need for further research, as these results are preliminary due to limitations and, in particular, the identified correlates need to be confirmed in further studies. Additionally, future studies may concentrate on specific locations in order to reach a more homogeneous sample in terms of working conditions. This would contribute to a better understanding of the psychological wellbeing of interpreters working with refugees in specific work contexts. Moreover, it might inform the development of preparatory training, workshops, and supervisions for interpreters in different work contexts within refugee care, thus potentially contributing to improved working conditions for interpreters.

Data availability statement

The datasets collected for this study cannot be made publicly available for privacy reasons. We determined not to

obtain consent from our participants for the sharing of data when the study was conceived. However, excerpts of the data on a higher aggregation level can be provided upon justified request by the first author.

Disclosure statement

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