

Social Acknowledgment as a Victim or Survivor: A Scale to Measure a Recovery Factor of PTSD

Andreas Maercker^{1,2} and Julia Müller¹

The development and validation of a new measure of social acknowledgment as a victim or survivor is presented, whose items were derived from previous research on social recovery factors of post-traumatic stress disorder. The Social Acknowledgment Questionnaire (SAQ) was administered to nontreatment seeking traumatized persons—178 former political prisoners in East Germany and 151 recently traumatized interpersonal crime victims. Principal components analysis yielded three factors—Recognition as victim, General disapproval, and Family disapproval. The factors showed high internal consistency and good test-retest reliability; correlated moderately to strong with measures of PTSD severity, social support, and reluctance to talk about the trauma. In comparison to a conventional measure of social support, the SAQ predicted comparably better between persons with high- and low-PTSD severity.

KEY WORDS: PTSD; recovery process; social support; questionnaire validation; political prisoners.

How people are treated after a traumatic event may well affect how they recover. Solomon, Mikulincer, and Flum (1989) showed that poor social integration and low societal appreciation of homecoming soldiers in the Lebanon War were related to more severe posttraumatic symptomatology. Similarly, Fontana and Rosenheck (1994) found that social rejection at the time of homecoming after a traumatic experience was a significant predictor of PTSD severity in Vietnam veterans. Such differences in social acknowledgment may have an impact on how trauma survivors emotionally and cognitively process their traumatic experiences. After a traumatic event, victims are typically in great need of support. They are likely to be extremely sensitive to how others react to them and how they describe or make attributions about the event and the role the victim played (Johnson et al., 1997). If these ascribed meanings are perceived as negative or blaming, the victims' aversive responses to reexperiencing the

trauma may be intensified, leading to increased attempts at avoidance. The extent to which victims' experiences are consensually validated or invalidated by their families or their societal milieu may have an important effect on their individual psychological adaptation to the traumatic stressor (Bennett-Herbert & Dunkel-Schetter, 1992; Cordova, Cunningham, Carlson, & Andrykowski, 2001; Southwick, Morgan, & Rosenberg, 2000).

We define social acknowledgment as a victim's experience of positive reactions from society that show appreciation for the victim's unique state and acknowledge the victim's current difficult situation. The term social here not only includes the closest social network of a victim (e.g., family, friends) but also significant persons (e.g., local authorities, clergy), groups (e.g., at the workplace, fellow citizens), and impersonal expression of opinions (e.g., media) about the experiences of the victims or survivors. In the positive case, social acknowledgment includes the unconditional support to the victims or survivors. In the negative case, victims experience a range of negative feedback including ignorance, rejection, or blaming the victim. Thus, social acknowledgment is opposed to societal disapproval, critique, or rejection, which has been described

¹Department of Psychology, University of Zurich, Zurich, Switzerland.

²To whom correspondence should be addressed at Department of Psychology, University of Zurich, Zurichbergstrasse 43, CH – 8044 Zurich, Switzerland; e-mail: maercker@klipsy.unizh.ch.

as a social condition that causes trauma survivors to feel unsupported, misunderstood, or otherwise alienated from their surrounding when they are seeking social support (Lepore, Silver, Wortman, & Wayment, 1996). An example of social critique of victims or survivors is the discussion in the public opinion or media that occurred after the release of the hostages in northern Africa, who were held captive by terrorists for 8 months. These people were accused of becoming hostages due to their own carelessness by the media. Because of the fact that the ransom money was paid by the government, part of public opinion called for the victims to pay this money themselves.

Social acknowledgment conceptually differs from social support which is commonly defined as the degree of emotional and instrumental support received by a person from the people in his or her environment. The new construct of social acknowledgment expands this environment to include the societal context. This means that not only individuals, but also social or pressure groups influence the person by judging him or her.

In reviewing the literature we did not find an adequate scale that measures acknowledgment as victim or survivor for different types of trauma. Johnson et al. (1997) developed a scale of homecoming stress, but this scale only applied to war veterans. It can be assumed that in other populations of victims (e.g., crime, rape, or torture survivors) social disapproval or acknowledgment may also play an important role for symptom development and maintenance. We therefore constructed a scale for measuring various aspects of how supportive victims perceive their interpersonal environment after a traumatic incident. We attempted to balance positive (e.g., acknowledgment or recognition) and negative aspects (e.g., rejection, disapproval). Furthermore, items should cover statements about acknowledgment from family and friends, as well from extended social environments (e.g., acquaintances, neighbors, colleagues, local authorities, clergy). In addition, a general perception of being appreciated as someone in a difficult state of suffering should be covered by the item pool.

In the current study, the main group investigated consisted of ex-political prisoners in the former communist East Germany. Political prisoners (PP) in the former East Germany are prime examples of interpersonal or human-caused trauma victims. Between 1949 and 1989, approximately 200,000 people were imprisoned for political reasons in East Germany during the socialist regime of the "German Democratic Republic." Previous studies (Bauer, Priebe, Häring, & Adamczak, 1993; Maercker & Schützwohl, 1997) have found high rates of various forms of physical and psychological maltreatment during interrogation and imprisonment, including beating, life threats,

being confined in darkness or witnessing torture of others, and remaining in prison for years and decades (Ehlers, Maercker, & Boos, 2000). Former PP are also prime examples for different kinds of social feedback to reports of their traumatic experience. Appreciation of their fate as pitiable victims of state terrorism is only slowly increasing (Maercker & Schützwohl, 2000) and the majority of fellow citizens ignore reports of these survivors. Moreover, a significant minority of the population (mostly voters for neo-communist parties) blames them for betrayal of social security and progress they believe the former German Democratic Republic stands for.

A second example of survivors of human-caused or interpersonal traumata are crime victims (CV), e.g., robbery, bodily violence victims. The general assumption for this group is that the extent of social acknowledgment for them differs interindividually. Dependent on contextual factors of the incident and social situation, interpersonal trauma victims may experience recognition, appreciation, sympathy, reserve, or ignorance.

In this validation study we examined whether the factor structure of the new measure of social acknowledgment developed on former PP would also be replicable for other human-caused trauma victims to prove the generalization of the construct. In addition, we investigated associations of the new measure with a standard measure of social support and a recently developed measure of disclosure of traumatic experiences (Müller, Beauducel, Raschka, & Maercker, 2000). Although we expected to find substantial associations between the new measure and general social support, we postulated that the more trauma-specific variable of social acknowledgment would predict larger unique variance of PTSD severity than would a standard measure of social support. Finally, we expected low social acknowledgment to be highly associated with avoidance (reluctance) of disclosure.

Method

Participants

Two samples were investigated. For the main analyses a sample of 178 former PP in the former German Democratic Republic (East Germany) was examined. For the investigation of the stability of the factor solution a second sample consisting of 151 recently traumatized (CV) was examined.

For the PP sample, the study was announced through advertisements and articles in newspapers as well as in newsletters of former organizations. Former PP, regardless of their actual need for treatment or help, were invited to participate in the study. The majority of participants

(75%) responded to advertisements in prisoners' organization newsletters and 25% responded to articles in newspapers. Seventy-four percent of the participants were male, with an average age of 55.1 years ($SD = 9.3$; range = 34–81). Seventy percent of the participants were married or were in a secure relationship, a quarter (26%) were separated or divorced, and 4% were widowed. Twenty-four percent had completed junior high school, 30% the first public examination in secondary school, 7% had graduated from high school, and 38% had completed university education. This sample was representative of the East German population in terms of education (Statistisches Amt der DDR, 1989) and equivalent to the PP of 1960 in terms of political status (Fricke, 1979). As expected, these PP were more likely to be divorced (26% vs. 8%) and unemployed (22% vs. 14%) at the time of the study than the East German population in general (Statistisches Amt der DDR, 1989; Statistisches Bundesamt, 2000).

All participants had experienced one or several traumas according to the *DSM-IV* definition of the A-criterion for PTSD during their detention time. They reported isolation confinement (78%), physical maltreatment (82%), psychological maltreatment (73%), and threat with death penalty (9%) as forms of their maltreatment in prison. The duration of the detention in which traumatic experiences took place was on average 27 months ($SD = 29$; range = 1–256). The release from custody occurred 25 years ($SD = 10$; range = 3–49) prior to the study.

A random subsample of 55 participants from the former PP group was retested after 2.2 months ($SD = 0.8$). All but one of the participants approached by us for this retest measure filled in the questionnaire. The mean age of this group was 56.3 years ($SD = 13.2$) and 73% ($n = 40$) were men.

A second sample of CV ($n = 151$) was examined. These participants had been recruited by a large legal victim aid organization (Weisser Ring). This association is the largest and most well-known victim assistance association in Germany. In the year 2001, the association gave practical or financial support or advice to about 10,000 victims (Weisser Ring, 2002). The participants were chosen at random, and were sent a questionnaire with a request to take part in the study. The response rate was 36%.

The mean age was 44.1 years ($SD = 17.6$; range 15–90 years) and 40% were men. Forty percent were married or in secure relationship, 50% had no partner, were separated, or divorced, and 10% were widowed. Concerning highest educational degree 42% had completed junior high school, 34% had passed the first public examination in secondary school, 13% had graduated from high school, and 10% had completed university education. This sample was representative of the German population in terms

of marital status and education (Statistisches Bundesamt, 2000).

Forty-six percent ($n = 70$) had experienced a severe bodily injury, 35% ($n = 53$) an armed robbery, and 18% ($n = 28$) violence from partners. The duration of the incidents amounted to $M = 23.7$ min ($SD = 79.4$). The Impact-of-Event R scores (see below) of this group were IES-intrusions, $M(SD) = 22.0(9.7)$; IES-avoidance, $M(SD) = 19.4(8.3)$; IES-hyperarousal, $M(SD) = 22.5(10.0)$.

Item Pool of the Social Acknowledgment Questionnaire

Following a review of the literature concerning the available concepts of social acknowledgment (e.g. homecoming reception) the items were designed in a rational way. Regarding the conceptualization of the item pool (questionnaire prototype with 66 items) sociocognitive processes and social reactions to traumatization appearing in the literature offered a rough orientation. Furthermore, a survey of statements by victims concerning good and bad examples of perceived acknowledgment of their suffering as trauma survivors provided further material for item formulation. In the items, the traumatic event was labelled systematically as “after the incident,” including political persecution as well as crime incidents.

After evaluation by four PTSD experts from our center and clinic, the item pool was reduced to 49 items. These items represented the following concepts: Perceived acknowledgment by public opinion (19 items), such as “Important figures of public life in my place of residence (e.g., mayor, priest) expressed their sympathy for me after the incident”; “I have been approached by strangers on the street, who expressed their sympathy”; perceived lack of understanding (14 items), such as “There is not enough sympathy for what happened to me”; “Somehow I am no longer a normal member of society since the incident”; and reactions of family and friends (16 items), such as “My family showed a lot of understanding for my state after the incident”; “In my circle of acquaintances, people think that I dramatise the incident.” Participants rated each item using a 6-point Likert-type scale from 0 (*totally disagree*) to 5 (*totally agree*).

Measures

Impact of Event Scale—Revised (IES-R; Weiss & Marmar, 1997; German validation: Maercker & Schützwohl, 1998)

IES-R was used to assess the frequency of post-traumatic stress symptoms in the preceding 7 days. The

intrusion subscale includes seven items ($\alpha = .87$ in this study); the avoidance subscale includes eight items ($\alpha = .78$ in this study); and the hyperarousal subscale includes seven items ($\alpha = .87$ in this study). In the instructions, participants were requested to refer their answers to their prison experience or to their criminal experience respectively.

Social Support (SOZU; Sommer & Fydrich, 1991)

This questionnaire is a German-language standard instrument for the collection of perceived social support. It has been used in many clinical sample-studies, e.g. anxiety or depressive disorders (Fydrich, Geyer, Hessel, Sommer, & Brähler, 1999). It contains items from the fields of emotional support, instrumental support, and social integration. Its 14-items capture perceived social support on a scale with values from 0 to 4. Its reliability and validity are satisfactory ($\alpha = .82$).

Disclosure of Trauma Questionnaire (DTQ; Müller et al., 2000)

DTQ is a 34-item self-report measure, which measures aspects of a person's intentions to disclose traumatic events. Its first subscale assesses the urge to talk, or how a person tries to express him/herself with regard to the experiences ($\alpha = .88$). The second subscale assesses reluctance to talk, or how the participant describes him/herself as not wishing to tell others about the trauma ($\alpha = .82$). The two subscales are independent of one another ($r = -.14$). The DTQ scales have been shown in previous research to have good retest-reliability and validity.

Data Analysis

For the statistical analysis, we tested the distribution of scales to determine whether they were skewed to extreme values (Kolmogoroff–Smirnov). The majority of scales (9 of 11)—including all of the SAQ scales—were normally distributed and we thus applied parametric statistics.

Results

Scale Development

We submitted the Social Acknowledgement Questionnaire (SAQ) prototype 49-item version to a principal-

components factor analysis with oblimin rotation. Oblimin rotation was chosen because of the expected medium to high level of intercorrelation of the SAQ subscales (Tabachnick & Fidell, 1996). Visual examination of the scree plot suggested a three-factor solution. The first factor explained 32.6% of the variance, and the second and third factors explained an additional 8.4 and 5.7%, respectively. Examining the items with high factor loadings suggested that two factors represented mostly negative aspects of general disapproval and family disapproval whereas only one factor dominated items of positive recognition as a survivor. Items that loaded more than .50 on a given factor and less than .30 on the remaining factors were selected for further consideration.

Because many items met these criteria, further item selection was on the basis of diversity of content, applicability to different types of trauma, and moderate correlation with other items. Five to six items that exemplified the factors were selected. Our goal was to keep the questionnaire short by including only 15 to 16 items.³ The final inventory contained 16 items (see items in Table 1). As eight items capture positive aspects and eight items capture negative aspects, it was decided to code the total score positively (the negative items were therefore recoded).

The factor structure of the final SAQ version (16 items) was tested in the two samples. First, the PP sample was put into principal-component analysis with oblimin rotation. The three-factor solution was supported (Table 1). The first factor explained 34.8% of the variance, the second 12.0%, and the third 9.6%. Second, a similar analysis was run for the CV sample. Factor loadings were 33.7, 12.7, and 9.0% respectively. As shown in Table 1, all items had high loadings on the factor to which they had been assigned. To further examine the replicability of the three SAQ scales we calculated the factor congruence coefficients (Nesselroade & Baltes, 1970) for each factor. Congruence coefficient ranged for the three subscales from $\phi = .94$ to $\phi = .96$, indicating that the factors replicated very well.

Cronbach's alphas for the three scales and total score for the PP sample were as follows: Total score, $\alpha = .86$; Recognition, $\alpha = .79$; General disapproval, $\alpha = .82$; Family disapproval, $\alpha = .78$. For the CV sample the Cronbach's alphas were: Total score, $\alpha = .79$; Recognition, $\alpha = .87$; General disapproval, $\alpha = .78$; Family disapproval, $\alpha = .85$.

³Wording and factor loadings of items that met statistical criteria but were cut for reasons of keeping the scale short were available from the authors by request.

Table 1. Factor Loadings of Social Acknowledgment Items in Samples of Former Political Prisoners ($N = 178$) and Crime Victims ($N = 151$)

Items	PP/CV		
	Factor 1	Factor 2	Factor 3
Most people cannot understand what I went through (#1)	.77/.74		
Somehow I am no longer a normal member of society since the incident (#2)	.80/.70		
There is not enough sympathy for what happened to me (#4)	.74/.70		
The only people who really understand me are those who have been through something similar (#5)	.67/.59		
Most people cannot imagine how difficult it is simply to continue with “normal” daily life (#7)	.81/.78		
The reactions of my acquaintances were helpful (#13)		.76/.58	
Many people offered their help in the first few days after the incident (#14)		.77/.57	
My friends feel sympathy for what happened to me (#12)		.66/.62	
The people where I live respect me more since the incident (#3)		.47/.76	
Important figures of public life in my place of residence (e.g. mayor, priest) expressed their sympathy for me after the incident (#15)		.42/.71	
My boss/superior showed full understanding for any absence from work (#16)		.52/.55	
My family showed a lot of understanding for my state after the incident (#11, recoded)			.67/.75
My family feels that they have to protect me (#9, recoded)			.64/.62
My family finds my reaction to the incident to be exaggerated (#6)			.72/.77
My experiences are underestimated in my family (#8)			.59/.78
My family feels uncomfortable talking about my experiences (#10)			.66/.75

Note. Only factor loadings of .40 or greater are listed. PP = political prisoners sample; CV = crime victims sample.

Pearson correlation coefficients were calculated to examine the test-retest reliability of the SAQ in the sample of former PP. For the 2-months retest they were as follows: Total score, $r = .80$; Recognition, $r = .85$; General disapproval, $r = .81$; Family disapproval, $r = .74$.

As shown in Table 2, the three SAQ scales correlated moderately positively or negatively with each other (all $ps < .001$): Recognition with General disapproval, $r = -.38$; General and Family disapproval, $r = .42$; Recognition with Family disapproval, $r = -.49$. The correlations with the Total score were $r = .80$, $-.76$, and $-.81$ for Recognition, General disapproval, and Family disapproval respectively.

Convergent Validity

To examine the convergent validity of the SAQ, we calculated Pearson correlations between the SAQ and the SOZU and DTQ subscales. As expected, we found moderate to high correlations between social support and the SAQ scales ($rs = .41 - .63$); see Table 2). DTQ reluctance to talk was somewhat less highly correlated with SAQ scales ($rs = .32 - .51$), whereas urge to talk was not related to the SAQ scales.

To examine predictive validity relationships between SAQ and PTSD symptoms, additional correlations were computed (also Table 2). As expected, all three

Table 2. Descriptive Statistics and Correlations of Psychological Variables in the Former Political Prisoners Sample ($N = 178$)

	<i>M</i>	<i>SD</i>	2	3	4	5	6	7	8	9	10	11
1. Social Acknowledgment (SAQ) total score (-40+40)	3.23	14.85	.80**	-.76**	-.81**	.63**	-.13	-.51**	-.51**	-.43**	-.54**	-.55**
2. Recognition (SAQ; 0-30)	16.03	9.25		-.38**	-.49**	.53**	.02	-.41**	-.29**	-.32**	-.30**	-.36**
3. General disapproval (SAQ; 0-25)	14.43	6.24			.42**	-.41**	.24**	.31**	.56**	.32**	.58**	.55**
4. Family disapproval (SAQ; 0-25)	9.86	6.88				-.55**	.10	.48**	.35**	.38**	.40**	.42**
5. Social support (SOZU) total score (0-56)	26.96	12.75					.01	-.54**	-.37**	-.35**	-.41**	-.42**
6. Disclosure (DTQ)—urge to talk (0-5)	2.68	1.12						-.18*	.41**	.13	.36**	.34**
7. Disclosure (DTQ)—reluctance to talk (0-5)	2.00	1.08							.41**	.57**	.47**	.53**
8. Intrusive recollections (IES-R) subscore (0-35)	20.23	10.76								.61**	.85**	.92**
9. Avoidance (IES-R) subscore (0-40)	14.78	9.89									.65**	.82**
10. Hyperarousal (IES-R) subscore (0-35)	17.24	11.54										.93
11. IES-R total score (0-110)	52.24	29.07										

Note. SAQ = Social Acknowledgment Questionnaire; SOZU = Social Support Questionnaire; DTQ = Disclosure of Trauma Questionnaire; IES-R = Impact of Event Scale-Revised.

* $p < .05$. ** $p < .01$.

Table 3. Summary of Hierarchical Regression Analysis for Control Variables, Social Support, and Social Acknowledgment Predicting IES-R Sum Score in the Former Political Prisoners Sample ($N = 178$)

Predictors	R^2	ΔR^2	B^a	$SE B^a$	β^a
Step 1: Control variables and social support	0.28***	—			
Gender ^b			-5.98	4.49	-0.09
Age			0.59	0.22	0.19**
Duration of trauma			0.10	0.07	0.11
Social support			-0.49	0.21	-0.21*
Step 2: Social acknowledgment ^c	0.39***	0.11***	-0.85	0.18	-0.42***

^aFinal results.

^b0 = female, 1 = male.

^cSAQ total score.

* $p < .05$. ** $p < .01$. *** $p < .001$.

acknowledgment scales correlated highly significantly with each IES-R scale. The scales Family disapproval and General disapproval correlated positively with the three IES-R scales ($r_s = .32-.58$), whereas the Recognition scale correlated moderately negative ($r_s = -.29-.32$).

Finally, we conducted a regression analysis to compare predictive validity between social acknowledgment and its rival construct of social support. Table 3 shows the summary of a hierarchical regression analysis predicting PTSD symptom severity (IES-R sum score). First, in step 1, the variables of gender, age, duration of trauma, and social support were entered simultaneously in the regression equation. Then, in step 2, we tested the incremental variance explained by social acknowledgment. The latter qualified with a R^2 -change = .16, $p < .001$, and a regression coefficient of $\beta = -.42$, $p < .001$. The directions of all regression coefficients were as expected.

In a second hierarchical regression analysis gender, age, duration of trauma, and social acknowledgment were entered in step 1 and social support was entered in step 2. Social support explained only an incremental variance of R^2 -change = .03, $p < .05$, with a regression coefficient of $\beta = -.21$, $p < .05$.

Discussion

The SAQ is a short self-report measure. All subscales are substantially correlated with PTSD symptomatology. The two subscales that measure lack of acknowledgment are positively correlated with symptoms. The subscale measuring positive aspects as well as the total score are negatively associated with symptomatology, suggesting that those individuals who receive more social acknowledgment benefit from it. The SAQ shows sufficient reliability across a 2-month period. This indicates that the

potentially protective interpersonal aspects of resilience in trauma victims could be assessed with this questionnaire.

The factor structure of the SAQ was found to be almost identical in two independent samples of ex-political prisoners and recently traumatized crime victims. The SAQ's three factors (subscales) seem to cover meaningful and distinct parts of the general phenomenon. For example, the association between PTSD symptoms and the General disapproval subscale was strongest. This finding may indicate that self-perceived rejection by extended social environments (e.g., acquaintances, colleagues, local authorities) could be even more important than self-perceived rejection by family.

As expected, the more specific concept of social acknowledgment explained a higher proportion of variance than did a standard measure of social support. The SAQ is associated with one feature of trauma disclosure, reluctance to talk, but not with another one, urge to talk. This latter finding refers to the fact that Southwick et al. (2000) did not find shared variance of the PTSD symptomatology with a measure of social sharing. In contrast, the construct of social acknowledgment shows unique predictive validity for PTSD.

The highly convergent factor solutions in the two samples points to the fact that the new construct of social acknowledgment seems to be applicable to various traumatized populations. It could be discussed whether the SAQ could be applied as well in traumatized groups of people who experience high media and societal attention as the "hero," e.g., New York Fire Fighters after September 11, 2001. Further research could also include measures of processes mediating or moderating the association between these social feedback to survivors and their posttraumatic distress. This research should include stage models of coping after trauma (e.g., Pennebaker & Harber, 1993), because social acknowledgment should be unknown to the individual shortly after victimization, as it has not had time to occur or not occur.

To qualify the interpretation of the scale, it must be noted that the scale measures the subjective perceived view of appreciation or interpersonal reaction. This is not the objective interaction. Therefore, it is possible that although the social environment deals carefully with the victim, the victim nevertheless feels misunderstood or not acknowledged. This bias in perception can be a consequence or interaction of the cognitive biases characteristic for PTSD (e.g., general feelings of alienation, Ehlers et al., 2000). An investigation of cognitive factors has shown that such distortions interfere with the perception of the self and of others in trauma victims (Foa, Ehlers, Clark, Tolin, & Orsillo, 1999). Our cross-sectional analysis is not able to determine causal relationships. It is therefore important

for future investigations to take into consideration these limitations, as well as to include further groups of trauma victims for generalization of the results.

References

- Bauer, M., Priebe, S., Häring, B., & Adamczak, K. (1993). Long-term sequelae of political imprisonment in East Germany. *Journal of Nervous and Mental Disease, 181*, 257–263.
- Bennett-Herbert, T., & Dunkel-Schetter, C. (1992). Negative social reactions to victims: An overview of responses and their determinants. In L. Montada, S. H. Fillipp, & M. J. Lerner (Eds.), *Life crises and experiences of loss in adulthood*. Hillsdale, NJ: Erlbaum.
- Cordova, M. J., Cunningham, L. L. C., Carlson, C. R., & Andrykowski, M. A. (2001). Social constraints, cognitive processing, and adjustment to breast cancer. *Journal of Consulting and Clinical Psychology, 69*, 706–711.
- Ehlers, A., Maercker, A., & Boos, A. (2000). Predictors of chronic PTSD following political imprisonment: The role of mental defeat, alienation, and perceived permanent change. *Journal of Abnormal Psychology, 109*, 45–55.
- Foa, E. B., Ehlers, A., Clark, D. M., Tolin, D. F., & Orsillo, S. M. (1999). The Posttraumatic Cognitions Inventory (PTCI): Development and validation. *Psychological Assessment, 11*, 303–314.
- Fontana, A., & Rosenheck, R. (1994). Posttraumatic stress disorder among Vietnam theater veterans. A causal model of etiology in a community sample. *Journal of Nervous and Mental Disease, 182*, 677–684.
- Fricke, K. W. (1979). *Politik und Justiz in der DDR. Zur Geschichte der politischen Verfolgung 1945–1968*. [Politics and justice in the GDR. On the history of political persecution 1945–1968]. Cologne, Germany: Wissenschaft und Politik.
- Fydrich, T., Geyer, M., Hessel, A., Sommer, G., & Braehler, E. (1999). *Fragebogen zur Sozialen Unterstützung: Normierung an einer repräsentativen Stichprobe* [Social Support Questionnaire (SozU): Norms of a representative sample]. *Diagnostica, 45*, 212–216.
- Johnson, D. R., Lubin, H., Rosenheck, R., Fontana, A., Southwick, S., & Charney, D. (1997). The impact of the homecoming reception on the development of posttraumatic stress disorder: The West Haven Homecoming Stress Scale (WHHSS). *Journal of Traumatic Stress, 10*, 259–277.
- Lepore, S. J., Silver, R. C., Wortman, C. B., & Wayment, H. A. (1996). Social constraints, intrusive thoughts, and depressive symptoms among bereaved mothers. *Journal of Personality and Social Psychology, 70*, 271–282.
- Maercker, A., & Schützwohl, M. (1997). Long-term effects of political imprisonment: A group comparison study. *Social Psychiatry and Psychiatric Epidemiology, 32*, 434–442.
- Maercker, A., & Schützwohl, M. (1998). *Erfassung von psychischen Belastungsfolgen: Die Impact of Event Skala-Revidierte Version* [Measuring posttraumatic stress: The Impact of Event Scale-revised]. *Diagnostica, 44*, 130–141.
- Maercker, A., & Schützwohl, M. (2000). Psychological long-term effects of political imprisonment in the former German Democratic Republic. In G. Heess-Erler, R. Manz, & W. Kirch (Eds.), *Public health research and practice*, (Vol. 2, pp. 215–235). Regensburg, Germany: Roderer.
- Müller, J., Beauducel, A., Raschka, J., & Maercker, A. (2000). *Kommunikationsverhalten nach politischer Haft in der DDR. Entwicklung eines Fragebogens zum Offenlegen der Traumaerfahrungen*. [Communicative styles after political imprisonment in the GDR: Development of a questionnaire regarding disclosure of traumatic experiences]. *Zeitschrift für Politische Psychologie, 4*, 413–427.
- Nesselroade, J. R., & Baltes, P. B. (1970). On a dilemma of comparative factor analysis. A study of factor matching based on random data. *Educational and Psychological Measurement, 30*, 935–948.
- Pennebaker, J. W., & Harber, K. D. (1993). A social stage model of collective coping: The Loma Prieta earthquake and the Persian Gulf War. *Journal of Social Issues, 49*, 125–145.
- Solomon, Z., Mikulincer, M., & Flum, H. (1989). The implications of life events and social integration in the course of combat-related posttraumatic stress disorder. *Social Psychiatry and Psychiatric Epidemiology, 24*, 41–48.
- Sommer, G., & Fydrich, T. (1991). *Entwicklung und Überprüfung eines Fragebogens zur sozialen Unterstützung* [Development and validation of a questionnaire on social support]. *Diagnostica, 37*, 160–178.
- Southwick, S. M., Morgan, C. A., & Rosenberg, R. (2000). Social sharing of Gulf War experiences: Association with trauma-related psychological symptoms. *Journal of Nervous and Mental Disease, 188*, 695–700.
- Statistisches Amt der DDR. (Ed.). (1989). *Statistisches Jahrbuch 1989 der DDR* [Statistical year-book 1989 for the German Democratic Republic]. Berlin, Germany: Author.
- Statistisches Bundesamt. (Ed.). (2000). *Statistisches Jahrbuch 2000 für die Bundesrepublik Deutschland* [Statistical year-book 2000 for the Federal Republic of Germany]. Stuttgart, Germany: Metzler-Poeschel.
- Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics*. New York: Harper Collins.
- Weiss, D. S., & Marmar, C.R. (1997). The Impact of Event Scale—Revised. In J. P. Wilson & T. M. Keane (Eds.), *Assessing psychological trauma and PTSD* (pp. 399–411). New York: Guilford Press.
- Weisser Ring. (Ed.). (2002). *Jahrbuch 2001* (Annual Report 2001). Mainz, Germany: Author.