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Embedded Journalists in the Iraq War: Are They at Greater Psychological Risk?

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The current war in Iraq saw an alliance between the media and the military, a process called embedded journalism. The aim of this study was to explore whether this process affected the journalists' vulnerability to psychological distress. Eighty-five of 100 journalists approached agreed to participate; 38 (44.7%) were embedded. There were no differences between embedded and unilateral (nonembedded) journalists on demographic measures or in their exposure to traumatic events. Similarly, the two groups did not differ on indices of posttraumatic stress disorder, depression, psychological distress, and substance use. Based on General Health Questionnaire scores, one third of all journalists were psychologically distressed. There is no evidence from the recent war in Iraq suggesting that embedded journalists are at increased risk for psychological problems.

War reporting can be a dangerous profession. Recent data have shown that journalists exposed to extreme danger during a decade-long career in war zones have lifetime prevalence rates of posttraumatic stress disorder (PTSD) and major depression of 28 and 22%, respectively (Feinstein, Owen, & Blair, 2002). Mortality rates also are high. Thus far, 33 journalists have died and many more have been injured in the ongoing Iraq war.

The war in Iraq has been unusual among modern conflicts in that it saw the formal introduction of the phenomenon known as "embedded" journalism. To control the movement of journalists on the battlefield, the military authorities offered some an attachment to combat units. Although this may have conferred an added modicum of safety, the presence of journalists on the front lines may potentially have had the opposite effect by exposing them to increased levels of risk. War can never be made safe, of course. But one way of assessing the impact of being embedded is to determine whether it has led to an increase or a decrease of psychological sequelae. Seen in the context of the high mortality rate among journalists in Iraq, the question takes on an added salience.

Method

Two large news organizations, one American and the other British, were approached for a list of their journalists active in the Iraq war. One hundred names were selected at random from this roster, and the journalists were asked to participate. Data were collected in early July 2003, at a point where President George W. Bush had declared the conventional war over.

A Web site was established, and all participants completed the study online. This approach allowed us to collect data from journalists in dispersed localities. The questionnaire included demographics, exposure, and symptom measures. The Ethics Committee affiliated with the University of Toronto approved the research proposal.

Demographic information included duration (in days) spent in Iraq and where the questionnaire was completed (in or out of Iraq). Journalists also were asked to

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rate the most dangerous war they had covered during the course of their careers.

The Trauma History Questionnaire (THQ; Green, 1996) documented the number of times journalists had been exposed to potentially traumatic situations over the course of their lifetimes. This self-report questionnaire is based on the "high magnitude" stressor questions from the *Diagnostic and Statistical Manual for Mental Disorders*, fourth edition (DSM-IV; American Psychiatric Association, 1994) field trials for PTSD. This 24-item scale provided a means to measure journalists exposure not only to traumatic events in the Iraq war but also to similar events in earlier wars and personal adverse events unrelated to war. By convention, each recalled traumatic event is given a single point, and a total score is provided by summing the individual items. To focus responses specifically on the Iraq war, two additional questions were asked: "In the recent Iraq war did you find yourself in a situation in which you feared you might be killed or seriously injured?" and "In the recent Iraq war have you seen someone seriously injured or killed?" If journalists replied yes to either question, they were asked to record the total number of such events.

The Impact of Events Scale-Revised (IES-R; Weiss & Marmar, 1997) provided an index of 22 symptoms of posttraumatic stress disorder divided into three subscales: intrusion, avoidance, and arousal. We asked participants to indicate symptoms that occurred during the past 7 days only and were related to traumatic events experienced or witnessed in Iraq. Five possible responses for each question (*not at all*, *a little bit*, *moderately*, *quite a bit*, and *extremely*) were scored 0, 1, 2, 3, 4, respectively. Although there are no specified cutoff points for the IES-R, anchor points based on mean scores (i.e., the mean divided by the number of questions) may be used in interpreting the data. For example, a mean intrusion score of 1.93 suggests intrusive symptomatology that approaches moderate severity. The percentage of participants in each of the five IES-R severity categories was noted. In our sample, Cronbach α values were .93 for the entire IES-R and .9 for the intrusion, .82 for the avoidance, and .82 for the arousal subscales, respectively.

Symptoms of depression were elicited with the 21-item Beck Depression Inventory, second edition (BDI-II; Steer, Ball, Ranieri, & Beck, 1999). Data were stratified according to specified severity thresholds: 0 to 13 = minimal, 14 to 19 = mild, 20 to 28 = moderate, and 29 to 63 = severe. The BDI-II Cronbach α value in our study was .9.

An index of overall psychological distress was provided by the 28-item General Health Questionnaire (GHQ; Goldberg & Hillier, 1979). This instrument contains four subscales describing symptoms of somatic complaints, anxiety, social dysfunction, and depression. A choice of four responses (scored 0, 0, 1, 1) is provided per question. The subscale scores are summed, and total scores greater or equal to 5 are considered indicative of psychological distress. In our sample, Cronbach's α for the four subscales were .84, .87, .81, and .84, respectively, with a score of .91 for the entire GHQ.

Illicit substance (cannabis, amphetamines, cocaine, barbiturates, and LSD) use was recorded. Drinking habits were ascertained by asking the participants how many glasses of wine, bottles of beer, and shots of spirits they drank weekly. Each of these alcohol measures was regarded as a "unit" and summed to give a total average weekly alcohol intake.

Results

Group Demographic Characteristics

Of the 100 journalists approached, 85 agreed to take part. Their mean age was 37.9 ($SD = 7.3$) years, and 67 (79%) were male. Thirty-eight (45%) were single, 40 (47%) were married, and 7 (8%) were divorced. The journalists had been working in zones of conflict for an average of 14.0 ($SD = 7.3$) years. Of the 85 journalists, 38 (45%) were embedded with military units.

Group Behavioral Data

A breakdown of the psychiatric data stratified for severity of symptoms was: PTSD intrusion—not at all distressing, 58%; a little bit distressing, 27%; moderately distressing, 14%; quite a bit distressing, 1%; and extremely distressing, 0%. The respective percentages for avoidance were 68, 30, 4, 0, and 0% and for arousal were 69, 22, 9, 0, and 0%. Stratified depression percentages according to severity were: minimal, 79%; mild, 14%; moderate, 6%; and severe, 1%. On the GHQ, 38% scored above the threshold denoting psychological distress.

The IES-R and BDI-II scores were highly correlated to each other ($r = .6$, $p < .001$), and both correlated with total GHQ scores ($r = .7$, $p < .001$ and $r = .5$, $p < .001$, respectively). None of these scores correlated significantly with levels of alcohol consumption.

Demographic Comparisons Between Embedded and Unilateral Journalists

Prior to undertaking between-group comparisons of continuous data, homogeneity of variance was noted using

Levene's test (Norusis, 1990). Six embedded and 7 unilateral journalists completed the study while in Iraq, $\chi^2(2, N = 85) = 0.004$, *ns*. The two groups had spent a similar number of days in Iraq ($M = 31.9$, $SD = 14.6$ vs. $M = 32.2$, $SD = 13.2$, respectively), $t(78) = -0.1$, *ns*. There were no demographic differences between embedded and unilateral journalists with respect to age ($M = 36.6$, $SD = 7.1$ vs. $M = 38.9$, $SD = 7.3$, respectively), $t(84) = -1.4$, n.s., gender (84.2% male vs. 74.5% male), $\chi^2(2, N = 85) = 1.1$, *ns*., marital status, $\chi^2(3, N = 85) = 3.1$, *ns*., education, $\chi^2(2, N = 85) = 3.8$, *ns*., and the number of years worked as a journalist ($M = 13.3$, $SD = 7.3$ vs. $M = 14.5$, $SD = 7.3$, respectively), $t(79.3) = -0.7$, *ns*.

With respect to personal exposure to traumatic events in Iraq, the embedded journalists reported an average of 3.2 events ($SD = 2.5$, median = 3.0, range = 0–10) compared with 2.6 events for unilateral journalists ($SD = 2.7$, median = 2.0, range = 0–10), $t(83) = 1.1$, *ns*. On the second question of witnessing someone getting seriously injured or killed in Iraq, the embedded group reported an average of 2.3 events ($SD = 3.6$, median = 0, range = 0–10) versus 1.8 events for unilateral journalists ($SD = 2.7$, median = 1, range = 0–10), $t(83) = 0.6$, *ns*. There were no group differences in lifetime exposure to traumatic events that occurred prior to the Iraq conflict; THQ total scores were, respectively, 21.9 ($SD = 13.3$) and 22.5 ($SD = 16.1$), $t(83) = -0.2$, *ns*.

Psychiatric Comparisons Between Embedded and Unilateral Journalists

Embedded and unilateral journalists had similar scores on all self-report measures, respectively: IES-R intrusion ($M = 7.3$, $SD = 6.9$ vs. $M = 7.1$, $SD = 6.4$), $t(79) = -0.2$, *ns*.; IES-R avoidance ($M = 5.3$, $SD = 5.0$ vs. $M = 5.8$, $SD = 5.8$), $t(79) = -0.5$, *ns*.; IES-arousal ($M = 3.8$, $SD = 4.3$ vs. $M = 4.2$, $SD = 4.2$), $t(79) = -0.5$, *ns*.; BDI-II ($M = 7.8$, $SD = 7.5$ vs. $M = 8.6$, $SD = 6.8$), $t(78) = -0.5$, *ns*.; and total GHQ ($M = 4.3$, $SD = 5.2$ vs. $M = 4.3$, $SD = 4.5$), $t(78) = 0$, *ns*. No group differences were present on the GHQ subscales.

More unilateral journalists smoked cigarettes (34 vs.13%), $\chi^2(2, N = 85) = 4.9$, $p < .05$. Seven embedded and 6 unilateral journalists smoked cannabis. Hard-drug use was negligible in both groups. There were no statistically significant group differences in weekly units of alcohol consumption for men; embedded and unilateral group means were, respectively, 15.1 ($SD = 21.5$) and 12.0 ($SD = 11.0$), $t(63) = 0.7$, *ns*.; for women, these means were, respectively, 12.8 ($SD = 10.0$) and 6.9 ($SD = 5.5$), $t(16) = 1.6$, *ns*.

Discussion

Data were collected on a group of 85 journalists covering the opening phase of the war in Iraq. Approximately 15% of the group reported intrusive symptoms of PTSD that were at least moderately distressing, roughly 7% were deemed to be moderately depressed, and one third of the sample scored above the GHQ threshold demarcating overall psychological distress. There were no behavioral differences between embedded and unilateral journalists despite the latter often functioning in relative isolation and, at times, risking the ire of coalition forces. The demographic profile of those studied, predominantly men in their late thirties with over 50% single or divorced, fits with data from an earlier study (Feinstein et al., 2002). The fact that 85% of the journalists approached agreed to participate suggests that our findings are representative.

The results from the THQ illustrate how dangerous this profession is. On average, embedded and unilateral journalists had been exposed to 22 events prior to the Iraq conflict that they considered intensely traumatic. The large majority of these occurred in zones of conflict. Additionally, journalists in Iraq averaged three further life-threatening events within the first weeks of the war. Together with the fact that journalists often witnessed death and dying in Iraq, this explains the pathogenesis of their PTSD symptom profile, with intrusive phenomena the most often experienced. The lower percentages of avoidant symptoms may reflect the fact that the majority of journalists completed the study once they had left Iraq. Of note was that embedded and unilateral journalists had a similar frequency of exposure to danger, and as such, the intensity of their PTSD symptomatology did not differ. This demonstrates that journalists are resourceful when it comes to gaining access to the front lines, be it with or without the assistance of military units.

The IES-R was used in an earlier study of war journalists, the majority of whom had spent a prolonged period covering the Balkan conflicts (Feinstein et al., 2002). In comparison, the present Iraq IES-R data are approximately 20% lower across the intrusion, avoidance, and arousal criteria, possibly reflecting the fact that none of the 85 journalists in this study regarded the beginning of the Iraq war as their most dangerous assignment. Nevertheless, almost 1 of 6 journalists still endorsed intrusive PTSD symptoms that they considered at least moderately distressing, with slightly lower percentages reporting distressing avoidant and arousal phenomena.

Looking at participant groups other than journalists can help place our findings in perspective. While there

are few published IES-R data, a number of earlier studies used a forerunner of the IES-R to assess symptoms. The original IES lacked the arousal category, included 7 rather than 8 avoidant symptoms, and offered only four responses per question that were scored 0, 1, 3, or 5. Thus, direct comparisons between the two IES versions must be viewed cautiously. With this limitation in mind, the total IES-R intrusion score of 7.3 in our Iraq journalist sample is higher than the 6.5 noted in United Nations relief workers, but lower than the 12.4 found in United Nation soldiers (Kaspersen, Mathiesen, & Götestam, 2003). The avoidant symptomatology data mirror these findings.

The absence of differences in PTSD symptoms between embedded and unilateral journalists is matched by their overlapping depression (BDI-II) and psychological distress (GHQ) data. While over 90% of journalists reported minimal or mild depressive symptoms, in those whose depression was more pronounced, distressing PTSD symptoms were usually more prominent as well, highlighting a previously well-described comorbidity in survivors of traumatic events (Bleich, Koslowsky, Dolev, & Lerer, 1997). We did not, however, find an association between these variables and levels of alcohol consumption. The significant correlation between the IES-R, BDI-II, and GHQ scores further suggests that the 37% rate of psychological distress as determined by the GHQ was largely driven by participants with more prominent PTSD and depressive symptomatology.

A drawback to the study was the absence of structured clinical interviews. Logistical and safety considerations made face-to-face interviews with the journalists in Iraq impractical. This reliance on subjective responses meant that we could not generate DSM-IV diagnoses for conditions such as major depression or PTSD. Furthermore, our data pertained to the first 3 weeks of hostilities only. Despite the war being declared won at that point, conflict of a different order has continued, giving rise to more casualties and a society beset by many dangers. How this has psychologically affected the journalists remaining in Iraq cannot be answered in the present study, but follow-up data are being collected.

In summary, we have presented data demonstrating that embedded and unilateral journalists in Iraq were exposed to similar levels of danger and did not differ in the frequency with which they endorsed symptoms of PTSD, depression, and psychological distress. Our findings support those from an earlier study showing that a significant minority of journalists may develop emotionally distressing symptoms related to working in war zones. Vigilance is therefore required in this most dangerous of professions not only in detecting who these journalists are but also in ensuring treatment is provided when needed.

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References

Bleich, A., Koslowsky, M., Dolev, A., & Lerer, B. (1997). Posttraumatic stress disorder and depression: An analysis of comorbidity. British Journal of Psychiatry, 170, 479–482.

Feinstein, A., Owen, J., & Blair, N. (2002). A hazardous profession: War, journalists and psychopathology. American Journal of Psychiatry, 159, 1570–1575.

Goldberg, D.P., & Hillier, V.F. (1979). A scaled version of the General Health Questionnaire. Psychological Medicine, 9, 139–145.

Green, B.L. (1996). Trauma History Questionnaire. In B.H. Stamm (Ed.), Measurement of stress, trauma and adaptation (pp. 366–368). Lutherville, MD: Sidran Press.

Kaspersen, M., Mathiesen, S., & Götestam, K. (2003). Social network as a moderator in the relation between trauma exposure and trauma reaction: A survey among UN soldiers and relief workers. Scandinavian Journal of Psychology, 44, 415–423.

Norusis, M. (1990). SPSS introductory statistics student guide. Chicago: SPSS Inc.

Steer, R.A., Ball, R., Ranieri, W.F., & Beck, A.T. (1999). Dimensions of the Beck Depression Inventory-II in clinically depressed outpatients. Journal of Clinical Psychology, 55, 117–128.

Weiss, D., & Marmar, C.R. (1997). The impact of event scale-revised. In J.P. Wilson & T.M. Keane (Eds.), Assessing psychological trauma and PTSD: A practitioner's handbook (pp. 399–411). New York: Guilford Press.