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Postmission Altruistic Identity Disruption Questionnaire

(PostAID-Q): Validity of a Measure of Responses Following Humanitarian Aid Work

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Table of contents

Acknowledgements ........................................................................................................... 5

Abstract .......................................................................................................................... 6

Critical Literature Review .............................................................................................. 9

Manuscript ......................................................................................................................... 33
  Abstract ......................................................................................................................... 35
  Introduction ................................................................................................................... 36
  Method ........................................................................................................................... 42
  Results ............................................................................................................................ 45
  Discussion ...................................................................................................................... 51

Appendix A Psychological Trauma: Theory, Research, Practice, and Policy Aims, Scope, and Author Guidelines ....................................................................................... 71

Appendix B Table 1. Summary of Means Bivariate Relationships between Demographic Variables and Questionnaires .................................................................................. 80

Appendix C Table 2. Internal Consistency of Current Research Compared to Previous Research ......................................................................................................................... 81

Appendix D Figure 1. Conceptualization of the Associations Between the GHQ-12, IES-R, SPS, and PostAID/Q. ................................................................................................. 82

Appendix E Figure 2. Conceptualization of the Contribution the GHQ-12 and PostAID/Q to the Measurement of IES-R Variance. ................................................................. 83

Appendix F Figure 3. Conceptualization of the Contribution the GHQ-12 and PostAID/Q make to the Measurement of SPS Variance......................................................... 84

Appendix G Figure 4. Conceptualization of the Contribution the IES-I, SPS_SocInt, SPS_WorthReass to the Measurement of PostAID/Q Variance........ 85
Appendix H  Figure 5. Conceptualization of the Contribution the IES-I and SPS_SocInt to the Measurement of PostAID/Q Variance..................86
Appendix I  Correlation Matrices Between the Various Questionnaires........87
Appendix J  Regression Tables........................................................................89
Appendix K  Postmission Altruistic Identity Questionnaire............................90
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Abstract

Aim

Humanitarian aid personnel are increasingly at risk of being exposed to primary and vicarious trauma due to the inherent risks associated with humanitarian work and the increasing politicization of humanitarian aid (Curtis, 2009; McCormack, Joseph, & Hagger, 2009; McFarlane, 2004). There is a need for the humanitarian field to develop an academic discipline that focuses on producing scientifically valid theories and procedures in the selection, training, and postmission support of aid personnel (McCall & Salama, 1999; Musa & Hamid, 2008). Furthermore, there is a need for a sensitive instrument for determining personnel’s vulnerability to traumatic stress.

The PostAID-Q is an 18-item self-report questionnaire designed to measure Altruistic Identity Disruption (AID). AID is a type of psychosocial distress that leads to feelings of isolation and invalidation, which results in reintegration difficulties and increased risk of psychological morbidity. The aim of this study was to establish the psychometric properties of the Postmission Altruistic Identity Disruption Questionnaire (PostAID-Q), in particular, the construct validity, incremental validity, and internal consistency reliability.

Method

Participants were recruited from the DEVEX (www.devex.com) and by word of mouth from the researchers humanitarian aid contacts. A total of 60 participants completed an online survey of 99 questions, comprising six questionnaires: the PostAID-Q, the 12-item General Health Questionnaire (GHQ-12), the Revised Impact of Event Scale (IES-R), the Short Depression Happiness Scale (SDHS), the Changes in Outlook Questionnaire (CIOQ), and the Social Provisions Scale (SPS).
To determine construct validity, scores on the PostAID-Q were compared to scores on the 12-item General Health Questionnaire (GHQ-12), the Revised Impact of Event Scale (IES-R), the Social Provisions Scale (SPS), the short-form Changes in Outlook Questionnaire (CIOQ), and the Short Depression Happiness Scale (SDHS) using bivariate correlations. Incremental Validity was examined using two hierarchical regression analyses. The dependent variable for the first regression was the IES-R and the independent variables were the GHQ-12 for the first step and the PostAID-Q for the second step. In the second hierarchical regression the dependent variable was the SPS. The independent variables were the same as the first regression. Internal Consistency Reliability was determined by examining the Cronbach’s alpha of the PostAID-Q.

**Results**

The current research replicated previous internal consistency findings for the GHQ-12, IES-R, SPS, and SDHS. The PostAID-Q demonstrated convergent and discriminant validity and thus construct validity. It also provided incremental validity compared to the GHQ-12 and strong internal consistency reliability (α = .82). The intrusion factor of the IES-R and the social integration factor of the SPS each uniquely measured 17% of PostAID/Q variance. This means that 34% of PostAID/Q variance is accounted for by intrusion and difficulties with social integration.

**Conclusion**

The PostAID-Q promises to be a useful self-report measure in the postmission care of humanitarian aid personnel and postmission/pre-deployment processes of humanitarian aid organizations. It is able to measure psychosocial distress in humanitarian aid personnel during reintegration. Further research should focus on replicating the validity results and establishing the reliability of the PostAID-Q.
Because the PostAID/Q can measure intrusive thoughts and social integration problems in international workers, future research should also determine the validity of its use with military personnel.
Critical Literature Review

Humanitarian Aid Organizations

Prior to World War II, humanitarian organizations tended to be apolitical, invisible, and relatively few in number (West, 2001). However, with the rise in inter-territorial conflict over the last 50 years, the number of humanitarian aid organizations has increased exponentially (Curtis, 2009). Earlier ‘missionaries’ dedicated their lives to educate, aid and relieve pain in remote places. However, the modern humanitarian’s role in bringing aid to those in need is more likely to be large scale, less sectarian, and less transparent politically. The growth of these organizations has resulted from increased globalisation, the formation of the UN, the Geneva Conventions, and Declarations of Human Rights, decreased motivation to spend the financial and political resources on military conflicts, and a desire and/or demand from constituents in mostly western countries to be seen to be doing something about the various humanitarian, military, and natural disaster crises around the world. This has resulted in a peaceful voice influencing the effects of war, negotiations of political crises, and natural disasters (West, 2001). From their position of relative obscurity, humanitarian aid organizations have become a major voice in the resolution of international humanitarian crisis responses (Musa & Hamid, 2008).

With the increase in the prominence and power of humanitarian aid organizations has come an increase in the scrutiny of their personnel management and care practices. Many organizations have adopted standard management practices from western countries. For example, many organizations provide in-depth written information about role orientation and physical health. However, research has shown that most personnel do not find this information useful, and rarely read the training materials provided (McCall & Salama, 1999).
The current standard of postmission care for personnel in humanitarian organizations is problematic at best, unethical at worst. Researchers have found there is a lack of uniformity in the recruitment, selection, training, field support, and follow up processes between various aid organizations (McCall & Salama, 1999). They found that it was hard to comment on a general standard of management practice within the humanitarian aid field because of the ad hoc nature of most management practices. Some organizations provided a high quality of care. Others provided little to no care at all (Ebrahim, 2003; Hilhorst, 2002; Hilhorst & Schmiemann, 2002; McCall & Salama, 1999). When the individual managers and field workers were surveyed the majority reported that the standard management practices adopted from western business organizations felt like blunt tools. The practices often led the humanitarian aid personnel to feel dehumanized and did not contribute to an increase in productivity or quality of work (Balcik, Beamon, Krejci, Muramatsu, & Ramirez, 2010; DeTorrente, 2004; Ehrenreich & Elliott, 2004). Standard management tools often used were created for predictable environments. However, humanitarian work is rarely predictable (McCall & Salama, 1999). Indeed, it seems as though the humanitarian field has some unique organizational challenges because of the nature of risks inherent in humanitarian work.

Despite the relatively poor level of management practices and care for humanitarian aid personnel by their sending organizations, the use of standard management practices has demonstrated an increasing focus on improving care practices for personnel. There may be a variety of reasons why care practices vary so much between organizations and are generally poor. These include a reluctance to allocate resources to the security of personnel (Bollettino, 2008), the anecdotal evidence that suggests an abundance of potential personnel compared the number of
positions available decreasing the incentive of organizations to direct resources to care practices, and the lack of reporting of problems by personnel due to the perceived stigma of being seen as not coping and/or having a mental illness (McCormack, Joseph, & Hagger, 2009).

**Humanitarian Aid Risks**

One of the unique challenges comes from the risks that humanitarian personnel face. In Afghanistan humanitarian aid personnel commonly experienced imprisonment, beatings, and harassment. Some have been tortured, or have disappeared. Most of these personnel reported feeling intense fear, frustration, a lack of hope, flashbacks, intrusive thoughts, and depression (Omidian, 2001). In Kosovo it was found that humanitarian personnel regularly faced traumatic experiences directly or vicariously. The most common trauma experiences were related to physical threats like sniper fire, or to a lack of social support due to separation from loved ones (Cardozo et al., 2005). In Sudan, local and expatriate humanitarian personnel reported high levels of primary and vicarious trauma, burnout, and psychological distress (Musa & Hamid, 2008). In Iraq, humanitarian personnel have faced isolation, fear, and significant trauma effects due to the threat or experience of bombings, kidnappings, beheadings, and other significant physical pressures (De Torrente, 2004). In Iraq, even more than in other recent humanitarian crises, there has been a blurring of political, military, and humanitarian roles. This has resulted in humanitarian personnel becoming targets (Donini, Minear, & Walker, 2004). It has also resulted in them feeling torn between their roles and humanitarian principles like impartiality, independence, and humanity (De Torrente, 2004; Donini et al., 2004).

Humanitarian aid personnel are at a greater risk of moral injury. Moral injury is defined as any act or passive lack of action that has a deleterious effect on a person
physically, socially, psychologically, or spiritually (Litz et al., 2009). Moral injury has been demonstrated in military personnel who perpetrate, bear witness to, or fail to prevent acts that they find deeply immoral (Drescher et al., 2011; Litz et al., 2009).

Because humanitarian personnel often experience war torn situations like military personnel, especially the witnessing and inability to prevent immoral acts, humanitarian personnel may go through a similar process of moral injury.

There is ambiguity relating what constitutes humanitarian aid work and humanitarian aid personnel (Eyber & Loughry, 2003). Generally, humanitarian aid personnel are national and expatriate workers who are deployed in response to a natural or military disaster to respond to the acute humanitarian needs of local people (Curtis, 2009; Gregor, 2004; West, 2001). Development personnel will be defined as those that work in lower risk settings with a more long-term focus. These include personnel deployed by religious NGO’s (i.e. missionaries) and non-religious NGO’s. Even in lower risk development situations, development personnel still experience a significant level of trauma, a lack of social support from family, friends, and the sending organization has been linked with high levels of stress, burnout, feelings of inadequacy and invalidation (Eriksson et al., 2009; Gregor, 2004). These risks put considerable psychological and social strain on development personnel (Bikos, 2009; Dahlgren, DeRoo, Avril, Bise, & Loutan, 2009; Grant, 1995; Schaefer et al., 2007). These effects are similar to the experiences of humanitarian aid personnel.

Humanitarian aid personnel have a high risk of developing poorer physical and psychological health outcomes and also are at a greater risk of developing risky behavioural responses to this stress, particularly regarding risky sexual practices and alcohol and substance use (Dahlgren et al., 2009; Wahlström, Michélsen, Schulman, & Backheden, 2008).
Humanitarian work is risker for national personnel compared to expatriate personnel. Cardozo et al. (2005) found that national humanitarian personnel experienced 3.2 traumatic experiences, whereas expatriate personnel experienced an average of 2.8 traumatic experiences. However, most of the research to date has focused on expatriate personnel.

What unites national humanitarian personnel, expatriate humanitarian personnel, and development personnel is their increased risk of experiencing primary and vicarious trauma (Bikos, 2009; Cardozo et al., 2005; Curtis, 2009; Dahlgren et al., 2009; Ehrenreich & Elliott, 2004; Eriksson et al., 2009; Grant, 1995; Musa & Hamid, 2008; Omidian, 2001; Schaefer et al., 2007). Therefore, this thesis assumes that the differences between the personnel are relatively minor and will refer to all personnel as humanitarian personnel.

Despite the significant risks that humanitarian personnel face, humanitarian organizations have little knowledge of, nor devote many resources to the psychological well being of their personnel (Ager et al., 2012; Cardozo et al., 2005; McCall & Salama, 1999; McCormack et al., 2009). As a result, there is an unnecessarily high level of psychological morbidity in the humanitarian field (McCall & Salama, 1999). Humanitarian personnel face higher rates of depression, anxiety, traumatic stress symptoms, burnout, and general psychological distress compared to workers in more stable positions (Ager et al., 2012; Ehrenreich & Elliott, 2004; Macdonald, Chamberlain, Long, & Mirfin, 1999; Musa & Hamid, 2008; Omidian, 2001; Schaefer et al., 2007). This is especially the case in the preparation for deployment and reintegration post deployment stages (Macdonald et al., 1999; McCormack & Joseph, 2013). In a study commissioned by the UK’s arm of the Red Cross, Save the Children Fund, Registered Engineers for Disaster Relief, and
International Health Exchange, around 30% of humanitarian workers reported feelings of disorientation postmission, and 17% felt as though people did not understand what they had experienced (Macnair & Británica, 1995). The greatest stressor for the people surveyed in this report came from a lack of support or antagonistic support from the sending organization (between 40-46% of respondents) and physical stressors (around 40%). It is estimated that 50% of humanitarian aid personnel have some level of work impairment because of stress (Kaur, 1996).

There is much empirically supported evidence demonstrating the difficulties humanitarian aid personnel face. There is also clear evidence demonstrating the link between trauma and psychological distress. However, there are few theories that seek to synthesize this knowledge into valid theories of the humanitarian experience that have real world utility (McCall & Salama, 1999; McCormack & Joseph, 2013). For over a decade there have been calls on the humanitarian field to develop an academic discipline that focuses on producing scientifically valid theories and procedures in the selection, training, and postmission support of their aid personnel (McCall & Salama, 1999; Musa & Hamid, 2008). Indeed, many of the managers in humanitarian organizations that were surveyed by McCall and Salama (1999) lamented the lack of a sensitive instrument for determining the personnel’s vulnerability to traumatic stress. It is difficult for humanitarian organizations to provide effective care for their personnel if they have no tool to help them know who needs supporting. It is clear that more research needs to be done to ascertain the specific psychological risks and effects humanitarian personnel face during redeployment, on mission, and post mission. It is also of particular importance to develop a simple validated instrument for detecting psychological distress in humanitarian personnel.
The theories that are developed in the humanitarian field need to be able to account for phenomenon specific to humanitarian aid personnel. Humanitarian aid personnel experience more exposure to primary and secondary traumatic events. They have higher rates of burnout, culture shock, and psychological morbidity for mental illnesses such as depression, anxiety, and posttraumatic stress disorder (Cardozo et al., 2005; Ehrenreich & Elliott, 2004; Eriksson et al., 2013; Grant, 1995; McCormack, 2010; Musa & Hamid, 2008; Omidian, 2001; Schaefer et al., 2007). However, they can experience posttraumatic growth (McCormack, 2010; McCormack, Hagger, & Joseph, 2010; McCormack et al., 2009). Any theory of the humanitarian experience needs to be able to account for psychological distress and growth.

**Altruistic Identity**

One question that arises from the research is “why do humanitarian aid personnel do the work they do if there are so many risks to their own physical and psychological well-being?” McCormack and Joseph (2009) suggest that one reason for this may be that humanitarian personnel are high in altruism.

Altruism refers to a strong connection with another human being that results in a commitment to help the person in need despite the risk, threat, or cost to themselves (Batson, 1991; McCormack et al., 2009). There is much debate about the nature of altruism and whether it is ultimately selfless or self-serving (Dugatkin, 2011; Fehr & Fischbacher, 2003). Although this is not the remit of this paper, it is important to note that humanitarian aid personnel tend on the whole to have an ideological orientation towards altruism (McCormack, 2010).

Altruistic acts can lead to short term increases of pleasure and self-worth, which prompt further acts of altruism (Zettler & Hilbig, 2010). However, there seems to be a number of complicating factors. When personnel engaging in altruistic acts go
through traumatic events, this can lead to significant challenges to their worldviews, for e.g. “people try to help other people.” However, the altruistic drive may also provide the way through this challenge (McCormack, 2010), as discussed later.

**Posttraumatic Growth**

McCormack (2010) reported that long-term humanitarian personnel experienced various primary and vicarious traumatic experiences while in the field. A traumatic experience is any event that overwhelms a person’s ability to cope. It is an event that shatters their preconceived values or ideology and impairs a person’s ability to make sense of their experiences (Grant, 1995; McCormack, 2009; Schaefer et al., 2007). These humanitarian personnel also reported experiencing positive change and growth experiences after these shattering events, often stating that they were better off because of the traumatic experience (McCormack, 2010). This phenomenon is called posttraumatic growth. It is simply the idea that for some people, “what doesn’t kill us makes us stronger” (Joseph, 2012). Growth differs to resilience in that resilient people are perceived to stay intact after a potentially traumatic experience. People who experience posttraumatic growth have experienced an existential challenge following a psychologically shattering event which leads them to rebuild themselves, like turning a shattered vase into a beautiful mosaic (Joseph, 2011).

The most comprehensive theory of posttraumatic growth is the Organismic Valuing Theory of Growth Through Adversity (Joseph & Linley, 2005). The Organismic Valuing Theory of Growth has four core theoretical principles. The first is that humans have a completion tendency. When a traumatic event occurs, there is a need to integrate this information with existing schemas. The traumatic information usually demonstrates our fragility, the uncertainty of life and the future, and that bad
things happen to all people. It can make clear the limits of our humanity and can cause existential challenges. When this occurs, a human will try to integrate the experience into their inner world. This information remains in active memory whilst the processing occurs, which leads to intrusive and avoidant states, that are characteristic of PTSD, until an equilibrium is achieved (Joseph & Linley, 2005; Joseph & Linley, 2008).

The equilibrium is achieved through a process of assimilation or accommodation. Assimilation happens when the traumatic memory is incorporated in existing cognitive schemas. Assimilation usually occurs when people do not engage with the seriousness of traumatic information. Assimilation does not lead to growth. Accommodation occurs when the traumatic information causes a revision of previously held schemas or views. People have a tendency towards accommodation. However, it is the more challenging route and a supportive social environment is required to facilitate accommodation (Joseph & Linley, 2005). The extent to which social needs have been met or not in the past or present, determines whether a person is likely to go through positive accommodation or negative accommodation. Positive accommodation refers to the process of seeing benefits that come from traumatic experiences. That is growth. Negative accommodation refers to the process of seeing only negative outcomes from a traumatic experience for e.g. developing feelings of hopelessness that lead to depression. This is the second theoretical principal of the Organismic Valuing Theory (Joseph & Linley, 2005).

The third principle is that humans develop meaning as a result of traumatic information. During the process of assimilation or accommodation people go through a comprehensibility meaning making process. That is, what happened, how, and why? After going through a stage of positive accommodation, the following stage is called
“meaning as significance”. This refers to the process of questioning what implications of the changes to their schemas have for their lives. For example a person may decide that bad things happen to good people and so everyday should be lived to the full in case it is the last (Joseph & Linley, 2005).

Finally, positive accommodation and the development of meaning as significance may not lead to more happiness. However, this growth process may lead to more wisdom, closer relationships, greater self-acceptance, and deeper spirituality, which contribute positively to psychological well-being. Most traditional theories of trauma conceptualize the trauma as something that negatively impacts on subjective well-being, such as the development of negative symptoms such as intrusion, avoidance, hopelessness etc. The Organismic Valuing Theory of Growth Through Adversity focuses instead on psychological well-being rather than subjective well-being (Joseph & Linley, 2005).

Social support is one of the most powerful factors that can facilitate posttraumatic growth (Joseph & Linley, 2008). If people have a social environment that is facilitative of the fundamental needs of autonomy, competence, and relatedness their organismic valuing process will be promoted and they will tend towards growth. If the organismic valuing process is thwarted through a lack of social support or antagonistic social support then people will tend towards negative accommodation or assimilation (Joseph & Linley, 2005).

Social Support in Humanitarian Personnel

Often, humanitarian personnel reintegrate following an international deployment to organizations, family members, and friends who are unable to validate their experiences and assist in their adaptive reintegration (McCormack, 2010). However, social support is not necessarily needed for posttraumatic growth to occur.
McCormack (2010) found that in the absence of social support and also when there was antagonistic social support, humanitarian personnel were still able to grow. Subsequent research found that Altruistic Identity (AI) was able to facilitate posttraumatic growth in the absence of social support or with antagonistic social support (McCormack et al., 2010).

**Altruistic Identity Disruption**

Whilst AI has been described as a facilitator of posttraumatic growth, it was only observed after a protracted period of psychosocial distress (McCormack, 2010). Stress associated with humanitarian work may occur as a result of transition between cultures, family and career disruption, organizational difficulties, as well as confronting and sometimes horrific traumatic events (Loquercio, 2006, McCormack & Joseph, 2013).

Often family members or friends are unwilling or unable to listen to or understand the experiences of returning personnel (McCormack et al., 2010). Also, humanitarian aid personnel often feel as though their needs and suffering are trivial compared to what they have witnessed in the field (Grant, 1995) or that talking about their distressing experiences may be perceived as weakness and impact future chances of deployment (Grant, 1995; Kaur, 1996). This can cause them to withdraw into a ‘conspiracy of silence’, where they feel isolated and withdraw, which can be interpreted by family and friends as if they are aloof or unwilling to talk (McCormack et al., 2009). This ‘conspiracy of silence’ impairs the connections between humanitarian aid personnel and their family, friends, and sending organizations, thus significantly increasing feelings of invalidation and self-blame. AID refers to this cyclical, invalidating psychosocial distress during reintegration postmission. The construct of AID (McCormack, Hagger, & Joseph, 2009) defines these disruptions to
the healthy altruistic identity associated with humanitarian work. It is manifest through poor reintegration processing postmission evidenced by emotional, cognitive and behavioural changes that leave the individual aid worker feeling isolated, invalidated, and alienated from family, friends or non-aid work colleagues (McCormack & Joseph, 2013).

When humanitarian aid personnel experience AID, they often seek validation from other humanitarian personnel and also look for validation from feeling useful once more. This often results in seeking premature redeployment. Humanitarian aid personnel are at their most vulnerable and lack readiness for redeployment when AID is high (McCormack & Joseph, 2013). Redeploying personnel when AID is high complicates social and psychological resolution of earlier humanitarian experiences, and risks increasing the chance of long-term psychological distress and social dysfunction (McCormack & Joseph, 2013; McCormack et al., 2009).

An important ethical question must be discussed here. Given that humanitarian aid personnel are high in altruism and also face greater risk of primary and vicarious trauma, one must ask who is caring for these care rs? Clearly, aid organizations have a duty of care to their personnel during the reintegration process, particularly when AID is high. Whilst AI can facilitate growth, it only occurs after much pain and after a protracted period of time (McCormack, 2010; McCormack et al., 2009). Social support is a more efficient facilitator of growth. Therefore, aid organizations should identify personnel that are high in AID, and provide appropriate support. They should also seek to provide basic psychosocial education to the family and friends of their personnel to inform and equip them for the potential AID that occurs post mission. If aid organizations were to do this, they would have a healthier work force that is less
prone to the high rates of burnout and turnover that are currently common. This would fulfill their duty of care to personnel and also decrease recruitment and training costs.

**Postmission Altruistic Identity Disruption Questionnaire**

The Postmission Altruistic Identity Disruption Questionnaire (PostAID/Q) is an 18-item questionnaire that has been developed to evaluate the level of AID experienced by humanitarian personnel (McCormack & Joseph, 2013). The PostAID/Q was designed with the aim of guiding humanitarian organizations in the postmission psychosocial care of their aid personnel, particularly regarding reintegration within their families, workplaces, and society. It has three clear functions:

- Guide organizations for the psychosocial support of their aid personnel,
- Assist humanitarian aid personnel to identify interpersonal, environmental, and organizational influences on their psychosocial wellbeing, and
- Assist organizations in assessing redeployment readiness.

The PostAID/Q was developed using Interpretive Phenomenological Analysis (IPA) of qualitative interviews (McCormack, 2010) and Principal Components Analysis (PCA) of a 79 item questionnaire (McCormack & Joseph, 2013). The PCA used a forced one-component solution eventuating with 18 items in the final version. It appears as though the PostAID/Q is a promising clinical tool with humanitarian aid personnel. As yet, there is no empirical research that has reported on the psychometric properties of the PostAID/Q. The aim of this study was to establish its psychometric properties. In particular, this study will seek to establish the construct validity of AID, the incremental validity and internal consistency reliability of the PostAID/Q.
Psychometric Properties

Construct Validity

The PostAID/Q is a measure of psychosocial distress. To establish convergent and discriminant validity, the PostAID/Q needs to be compared to measures of psychological and social distress. The measures chosen for this task are the 12-item General Health Questionnaire (GHQ-12), Revised Impact of Event Scale (IES-R), Changes in Outlook Questionnaire (CiOQ), the Short Depression Happiness Scale (SDHS), and the Social Provisions Scale (SPS).

The General Health Questionnaire is the current gold standard psychological distress measure (Benjamin, Lennon, & Gardner, 1991; Goldberg, 1985; Goldberg & Hillier, 1979; Hankins, 2008). Whilst its primary purpose it to assess psychological distress, it has been negatively associated with social support (Harrison, Barrow, Gask, & Creed, 1999). The significance of this association is that the GHQ-12 may measure similar phenomena as the PostAID/Q.

The IES-R is a measure of subclinical subjective traumatic stress. It has three factors: intrusion; hyperarousal; and avoidance, relating to the three symptom clusters of Post Traumatic Stress Disorder (PTSD) as defined by the Diagnostic and Statistical Manual (DSM-IV-TR) (APA, 2000). It is not diagnostic of PTSD, instead measuring a subclinical level of posttraumatic stress. It has been shown to be predictive of the future development of PTSD (Beck et al., 2009; Creamer, Bell, & Failla, 2003; Horowitz, Wilner, & Alvarez, 1979; Joseph, 2000; Weiss & Marmar, 1997).

The CiOQ is a two-factor measure. It has a psychological distress factor and a psychological growth factor (Joseph et al., 2005; Joseph, Linley, Harwood, Lewis, & McCollam, 2004). The CiOQ measures positive and negative changes in a person’s outlook after significant stress events (Joseph et al., 2005).
The SDHS is a single factor measure with two components measuring opposite poles of the same spectrum. It measures depression and happiness at any one point in time (Joseph et al., 2004). The strength of using the CiOQ and SDHS is that they both take into account distress and growth aspects of the human experience.

The Social Provisions Scale (SPS) measures perceived social support. There are six factors but they are likely to load onto a single factor associated with loneliness (Cutrona, 1986). The factors are attachment, social integration, reassurance of worth, reliable alliance, guidance, and opportunity for nurturance (Cutrona, 1984, 1986; Cutrona, Russell, & Rose, 1986).

To demonstrate convergent validity the PostAID/Q will need to be positively associated with the GHQ-12, IES-R, the negative factor of the CiOQ, and the depression factor of the SDHS. A negative association with SPS must also be found to demonstrate convergent validity. To demonstrate discriminant validity the PostAID/Q must not be associated with the positive factor of the CiOQ and the happiness factor of the SDHS.

**Incremental Validity**

Incremental validity refers to the extent to which a new measure improves the predictive validity compared to an existing measure (Haynes & Lench, 2003; Hunsley & Meyer, 2003). Incremental validity is an important, yet neglected part of assessment development (Haynes & Lench, 2003). Hierarchical regression analyses should be used to establish incremental validity (Haynes & Lench, 2003; Hunsley & Meyer, 2003).

Given that the GHQ-12 can measure both psychological distress and a potential absence of social support, it is the ideal measure to compare to the PostAID/Q. There will be two hierarchical regression analyses. The IES-R will be the
dependent variable in the first regression. The GHQ-12 will be the first independent variable entered into the equation. The PostAID/Q will be the independent variable entered into the second step of the regression. In the second hierarchical regression, the dependent variable will be the SPS. The dependent variables will remain identical. This will allow a measurement of how much variance the GHQ-12 and PostAID/Q can account for in the measurement of psychological distress and social distress respectively.

There are eight hypotheses. First, that previous results indicating internal consistency of the GHQ-12, IES-R, SPS, SDHS and CIOQ will be replicated. Second, the inter-measure correlations from previous research will be replicated. Thirdly, the PostAID/Q items loading onto a single factor and producing a high Cronbach’s alpha will determine internal consistency. Fourth, the PostAID/Q will demonstrate discriminant validity by not being correlated with the positive factor in the CiOQ (CIOQ-P) or the happiness factor in the SDHS (SDHS-H), and being negatively correlated with the SPS and its six factors. Fifth, the PostAID/Q will demonstrate convergent validity by being correlated with the negative factor in the CiOQ (CIOQ-N), the depression factor in the SDHS (SDHS-D), the GHQ-12, and the IES-R. Six, The PostAID/Q will demonstrate incremental validity by accounting for additional variance in the measurement of psychological distress as measured by the IES-R compared to the GHQ-12 alone; and accounting for additional variance in the measurement of social distress as measured by the SPS compared to the GHQ-12 alone. Seventh, identifying which psychological and social distress factors account for significant variance will provide further understanding of the theoretical architecture of the PostAID/Q. Finally, the theoretical architecture of the PostAID/Q should be
explored to explore which factors of psychological and social distress measures account for the most PostAID/Q variance.
References


Manuscript
Postmission Altruistic Identity Disruption Questionnaire (PostAID/Q):
Reliability and Validity in measuring distress during reintegration following
International Humanitarian Aid Work

Lynne McCormack PhD
Andrew Orenstein
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Abstract

The Postmission Altruistic Identity Disruption Questionnaire (PostAID/Q) is an 18-item self-report screening tool for assessing Altruistic Identity Disruption (AID; McCormack & Joseph, 2013) in international humanitarian aid personnel. The aim of this study was to test its psychometric properties. The PostAID/Q is used postmission to: 1) guide organizations in their psychosocial support of aid personnel in the reintegration period; 2) highlight complex emotional, cognitive and behavioural disruptions to a healthy altruistic identity; 3) assist the individual in identifying interpersonal, environmental and organizational-related distress; and 4) indicate a returnees’ subsequent readiness for redeployment. Internal consistency reliability was determined by examining the Cronbach’s alpha of the PostAID/Q. To determine construct validity, correlations were examined for relationships between the PostAID/Q and the General Health Questionnaire (GHQ-12), Impact of Events Scale (IES-R), Short Depression Happiness Scale (SDHS), Changes in Outlook Questionnaire (CIOQ), and Social Provisions Scale (SPS). Incremental validity was examined using two hierarchical regression analyses. The PostAID/Q demonstrated strong internal consistency reliability ($\alpha = .82$); construct validity, and incremental validity compared to the GHQ-12 in the measurement of psychological and social distress. It therefore promises to be a useful self-report measure in the postmission care of humanitarian aid personnel and postmission/pre-deployment processes for humanitarian aid organizations. Further research should focus on replicating the validity results and establishing further the reliability of the PostAID/Q.

Keywords: PostAID/Q; Altruistic Identity (AI); psychometric assessment; Altruistic Identity Disruption (AID); humanitarian aid personnel.
Introduction

The current standard of postmission care for personnel in humanitarian organizations is problematic at best, unethical at worst. Researchers have found there is a lack of uniformity in the recruitment, selection, training, field support, and follow up processes between various aid organizations (McCall & Salama, 1999). Therefore, it is hard to comment on a general standard of management practice within the humanitarian aid field because of the ad hoc nature of most management practices (Ebrahim, 2003; Hilhorst, 2002; Hilhorst & Schmiemann, 2002; McCall & Salama, 1999). Many organizations have adopted standard management practices from western countries. For example, many organizations provide in-depth written information about role orientation and physical health. However, research has shown that most personnel do not find this information useful, and rarely read the training materials provided (McCall & Salama, 1999).

When individual managers and field workers were surveyed the vast majority reported that the standard management practices adopted from western business organizations felt like blunt tools (McCall & Salama, 1999). These practices often left humanitarian aid personnel feeling dehumanized and did not contribute to an increase in productivity or quality of work (Balcik et al., 2010; De Torrente, 2004; Ehrenreich & Elliott, 2004). Most standard management tools used were created for predictable environments. However, humanitarian work is rarely predictable (McCall & Salama, 1999). Indeed, it seems as though the humanitarian field has some unique organizational challenges due to the nature of risks inherent in humanitarian work.

Humanitarian Aid Risks

One of the unique challenges comes from the risks that humanitarian personnel face. In Afghanistan humanitarian aid personnel commonly experienced
imprisonment, beatings, and harassment. Some have been tortured, or have disappeared. Most of these personnel reported feeling intense fear, frustration, a lack of hope, flashbacks, intrusive thoughts, and depression (Omidian, 2001). In Kosovo it was found that humanitarian personnel regularly faced traumatic experiences directly or vicariously. The most common trauma experiences were related to physical threats like sniper fire, or to a lack of social support due to separation from loved ones (Cardozo et al., 2005). In Sudan, local and expatriate humanitarian personnel reported high levels of primary and vicarious trauma, burnout, and psychological distress (Musa & Hamid, 2008). In Iraq, humanitarian personnel have faced isolation, fear, and significant trauma effects due to the threat or experience of bombings, kidnappings, beheadings, and other significant physical pressures (De Torrente, 2004). In Iraq, even more than in other recent humanitarian crises, there has been a blurring of political, military, and humanitarian roles. This has resulted in humanitarian personnel becoming targets (Donini et al., 2004). It has also resulted in personnel feeling torn between organizational requirements and humanitarian principles like impartiality, independence, and humanity (De Torrente, 2004; Donini et al., 2004).

There is ambiguity relating what constitutes humanitarian aid work and humanitarian aid personnel (Eyber & Loughry, 2003). Generally, humanitarian aid personnel are national and expatriate workers who are deployed in response to a natural or military disaster to respond to the acute humanitarian needs of local people (Curtis, 2009; Gregor, 2004; West, 2001). Development personnel will be defined as those that work in lower risk settings with a more long-term focus. These include personnel deployed by religious NGO’s (i.e. missionaries) and non-religious NGO’s. Even in lower risk development situations, development personnel still experience a
significant level of trauma, a lack of social support from family, friends, and the sending organization has been linked with high levels of stress, burnout, feelings of inadequacy and invalidation (Eriksson et al., 2009; Gregor, 2004). These risks put considerable psychological and social strain on development personnel (Bikos, 2009; Dahlgren et al., 2009; Grant, 1995; Schaefer et al., 2007). These effects are similar to the experiences of humanitarian aid personnel.

Humanitarian work is risker for national personnel compared to expatriate personnel. Cardozo et al. (2005) found that national humanitarian personnel experienced 3.2 traumatic experiences, whereas expatriate personnel experienced an average of 2.8 traumatic experiences. However, most of the research to date has focused on expatriate personnel.

What unites national humanitarian personnel, expatriate humanitarian personnel, and development personnel is their increased risk of experiencing primary and vicarious trauma (Bikos, 2009; Cardozo et al., 2005; Curtis, 2009; Dahlgren et al., 2009; Ehrenreich & Elliott, 2004; Eriksson et al., 2009; Grant, 1995; Musa & Hamid, 2008; Omidian, 2001; Schaefer et al., 2007). For this reason the thesis assumes that the differences between the personnel are relatively minor and will refer to all personnel as humanitarian personnel.

Even in lower risk humanitarian situations, a lack of social support from family, friends, and the sending organization has been linked with high levels of stress, burnout, feelings of inadequacy and invalidation (Eriksson et al., 2009; Gregor, 2004). These risks put considerable psychological and social strain on humanitarian personnel (Ager et al., 2012; Cardozo et al., 2005; De Torrente, 2004; Donini et al., 2004; McCormack, 2010; Omidian, 2001). Transitioning from these roles and environments can produce unique challenges for humanitarian aid personnel.
Despite the significant issues that humanitarian personnel face during and postmission, humanitarian organizations have little knowledge of, nor devote many resources to the psychological well being of their personnel (Ager et al., 2012; Cardozo et al., 2005; McCall & Salama, 1999; McCormack et al., 2009). As a result, there is an unnecessarily high level of psychological morbidity in the humanitarian field (McCall & Salama, 1999). Humanitarian personnel face higher rates of depression, anxiety, traumatic stress symptoms, burnout, and general psychological distress compared to workers in more stable positions (Ager et al., 2012; Ehrenreich & Elliott, 2004; Macdonald et al., 1999; Musa & Hamid, 2008; Omidian, 2001; Schaefer et al., 2007). This is especially the case in the preparation prior to deployment and reintegration post deployment stages (Macdonald et al., 1999; McCormack & Joseph, 2013). In a study commissioned by the UK’s arm of the Red Cross, Save the Children Fund, Registered Engineers for Disaster Relief, and International Health Exchange, around 30% of humanitarian workers reported feelings of disorientation postmission and 17% felt as though people did not understand what they had experienced (Macnair & Britânica, 1995). The greatest stressor for the people surveyed in this report came from a lack of support or antagonistic support from the sending organization (between 40-46% of respondents) and physical stressors (around 40%). It is estimated that 50% of humanitarian aid personnel have some level of work impairment because of stress (Kaur, 1996). Talking about this psychosocial distress with professionals and loved ones is extremely important, yet there are significant barriers, both personally and organizationally, to seeking this kind of help.

There is much empirically supported evidence demonstrating the difficulties humanitarian aid personnel face. There is also clear evidence demonstrating the link
between trauma and psychological distress. However, there are few theories that seek
to synthesize this knowledge into valid theories of the humanitarian experience that
have clinical utility (McCall & Salama, 1999; McCormack & Joseph, 2013). For over
a decade there have been calls on the humanitarian field to develop an academic
discipline that focuses on producing scientifically valid theories and procedures in the
selection, training, and postmission support of their aid personnel (McCall & Salama,
1999; Musa & Hamid, 2008). Indeed, many of the managers in humanitarian
organizations that were surveyed by McCall and Salama (1999) lamented the lack of a
sensitive instrument for determining the personnel’s vulnerability to traumatic stress.
It is difficult for humanitarian organizations to provide effective care for their
personnel if they have no tool to help identify personnel that require further support. It
is clear that more research needs to be done to assess the specific psychological risks
and effects humanitarian personnel face during redeployment, on mission, and post
mission.

Postmission Altruistic Identity Disruption Questionnaire

The Postmission Altruistic Identity Disruption Questionnaire (PostAID/Q) is
an 18-item questionnaire that has been developed to evaluate the level of psychosocial
distress that humanitarian aid personnel experience post mission. Specifically, it is
designed to measure the level of Altruistic Identity Disruption (AID) experienced by
humanitarian personnel (McCormack & Joseph, 2013). AID refers to the psychosocial
reintegration difficulties aid personnel experience postmission. High levels of AID
result from a combination of challenging experiences during mission and invalidating
social support during or post mission. AID leads to feelings of alienation from the
sending organization, family, and friends. AID paradoxically may result in
humanitarian aid personnel seeking validation from other aid personnel through
premature redeployment. Redeploying individuals prior to completing reintegration processes may contribute to further psychosocial distress and even psychological morbidity (McCormack & Joseph, 2013).

The PostAID/Q was designed with the aim of guiding humanitarian organizations in the postmission psychosocial care of their aid personnel, particularly regarding reintegration within their families, workplaces, and society. It has three clear functions:

- Guide organizations for the psychosocial support of their aid personnel,
- Assist humanitarian aid personnel to identify interpersonal, environmental, and organizational influences on their psychosocial wellbeing, and
- Assist organizations in assessing redeployment readiness.

The PostAID/Q was developed using Interpretive Phenomenological Analysis (IPA) of qualitative interviews (McCormack, 2010) and Principal Components Analysis (PCA) of a 79 item questionnaire (McCormack & Joseph, 2013). The PCA used a forced one-component solution eventuating with 18 items in the final version. It appears as though the PostAID/Q is a promising clinical tool with humanitarian aid personnel. As yet, there is no empirical research that has reported on the psychometric properties of the PostAID/Q. The aim of this study was to establish its psychometric properties. In particular, this study will seek to establish the construct validity of AID, the incremental validity and internal consistency reliability of the PostAID/Q.

There are seven hypotheses. First, that previous results indicating internal consistency of the GHQ-12, IES-R, SPS, SDHS and CIOQ will be replicated. Second, the inter-measure correlations from previous research will be replicated. Thirdly, the PostAID/Q items loading onto a single factor and producing a high Cronbach’s alpha will determine internal consistency. Fourth, the PostAID/Q will demonstrate
convergent validity by being positively associated with the negative factor in the CiOQ (CIOQ-N), the depression factor in the SDHS (SDHS-D), the GHQ-12, and the IES-R. Also the PostAID/Q will have a negative association with the SPS. Fifth, the PostAID/Q will demonstrate discriminant validity by not being correlated with the positive factor in the CiOQ (CIOQ-P) or the happiness factor in the SDHS (SDHS-H). Six, The PostAID/Q will demonstrate incremental validity by accounting for additional variance in the measurement of psychological distress as measured by the IES-R compared to the GHQ-12 alone; and accounting for additional variance in the measurement of social distress as measured by the SPS compared to the GHQ-12 alone. Finally, identifying which psychological and social distress factors account for significant variance will provide further understanding of the theoretical architecture of the PostAID/Q.

**Method**

Participants were recruited by an online advertisement on the DEVEX website, and via email to the researchers humanitarian aid networks from previous work and research. Interested parties contacted the researchers via email. Potential participants were screened to assess whether they met the criteria of working internationally for longer than three months in the humanitarian aid field and whether they were fluent in English. The participants included national and expatriate humanitarian personnel and development personnel. Potential participants were then sent a link to Survey Monkey and asked to complete six questionnaires and five demographic questions (99 questions in total) on line. All items except the demographics questions were mandatory. Participants were able to use the back button to amend any answers they had previously given. All participants were required to have experienced the post-deployment process. None of the participants
were currently on their first deployment. A type 1 error rate of $p < .05$ was used for all statistical tests in the analyses.

**Internal Consistency**

The PostAID/Q was completed first. Internal Consistency was analyzed by generating Cronbach’s alpha scores through reliability testing of the 18 PostAID/Q items.

**Convergent Validity**

In order to test convergent validity, participants next completed the GHQ-12, IES-R, and SPS. The GHQ-12 is a 12-item questionnaire that tests recent psychological distress. It is the current gold standard questionnaire for testing psychological distress (Benjamin et al., 1991; Goldberg, 1985; Goldberg & Hillier, 1979; Jackson, 2007; Pevalin, 2000). Items are scored 0-3 on a four point Likert scale and are added to form a total score between 0-36.

The IES-R is a 22-item questionnaire that measures subjective response to a traumatic event. Scores are rated 0-4 on a five point Likert scale. It has three factors associated with Post Traumatic Stress Disorder (PTSD): hyperarousal (six items), intrusion (eight items), and avoidance (eight items). Individual sub scale scores range from 0-32 for avoidance and intrusion and 0-24 for hyperarousal. The total score ranges from 0-88. The IES-R is not diagnostic of PTSD. It is thought to measure the more general construct of subjective trauma related psychological distress (Creamer et al., 2003; Horowitz et al., 1979; Joseph, 2000). Higher scores on the PostAID/Q, GHQ-12 and the IES-R are indicative of more distress.

The SPS is a 24-item questionnaire that measures perceived social support. It is scored on a five point Likert scale from 0-4. Total scores range from 0-96. Higher scores indicate high levels of perceived social support (Cutrona, 1989). It has six
factors: attachment (items 2 Reverse scored [R], 11, 17, and 21R); social integration (items 5, 8, 14R, and 22R); reassurance of worth (6R, 9R, 13, and 20); guidance (3R, 12, 16, and 19R); reliable alliance (items 1, 10R, 18R, and 23); and opportunity for nurturance (items 4, 7, 15R, and 24R). A lack of social support, or low scores on the SPS, was assumed to be synonymous with social distress.

**Discriminant Validity**

To establish discriminant validity participants next completed the CIOQ and the SDHS. The CIOQ is a 26-item (long form) or 10-item (short form) questionnaire that measures schematic changes due to an event (Joseph et al., 2005). It has two factors, positive change (CIOQ_P) and negative change (CIOQ_N). The short form CIOQ was used in this study to reduce the effort required from participants. It is scored on a Likert scale from 1-6 with both the positive and negative sub scales ranging from 5-30. Higher scores indicate more positive and negative changes respectively (Joseph et al., 2005; Joseph et al., 2012; Zang, Hunt, Cox, & Joseph, 2012). The SDHS is a six-item questionnaire that measures the depression-happiness continuum. It loads onto a single factor but also generates a depression score (SDHS_D) and a happiness score (SDHD_H) (Joseph et al., 2004). Scores range from 3-9 for each subscale. The CIOQ_N and SDHS_D were used to determine if there was convergent validity with the PostAID/Q, with positive associations expected. The CIOQ_P and SDHS_H were used to determine if there was discriminant validity whereby the PostAID/Q would have been unrelated to both the CIOQ_P and SDHS_H.

**Incremental Validity**

To examine the incremental validity of the PostAID/Q, two hierarchical regressions were conducted. The first examined how much variance the PostAID/Q
accounted for in the measurement of psychological distress, measured by the IES-R, compared to the GHQ-12 alone. The second hierarchical regression examined how well the PostAID/Q accounted for variance of social distress, as measured by the SPS, compared to the GHQ-12 alone. In the first hierarchical regression, the IES-R was the dependent variable. In the second, the SPS was the dependent variable. For each analysis the GHQ-12 was entered in the first step. The PostAID/Q was then forced into the model. Two hierarchical regressions were performed because there is no existing measure of psycho-social distress. The GHQ is the current gold standard of psychological distress and also has been negatively associated with social support.

Finally, the theoretical architecture of the PostAID/Q was explored by the entering of individual factors of the IES-R and SPS into two separate step-wise regression analyses to understand which factors explained the most variance in the PostAID/Q. Typically, it can be problematic to swap the independent and dependent variables. However, as causality is not being implied in this study, it is acceptable to do so in this instance (Howell, 2014).

**Results**

The online survey was sent to 93 participants who had initially expressed interest in the survey, with 62 starting the survey. However, 2 participants did not complete all questionnaires (response rate of 67%). Their responses are included for any questionnaire they did complete. There were 36 females and 24 males ranging from 27-76 years old (M=25.10, SD=13.55). The length of their last mission ranged from three months to 30 years (M=37 months, SD = 62.74). The participants were required to have worked internationally for longer than three months and be able to speak English fluently. They had worked in the Middle East (n = 11), Africa (n = 20), Asia (n = 15), South America (n = 3), and Australasia (n = 11). Participants worked
for a variety of organisations from NGO’s both religious (n=17) and non-religious (n=22), the UN (n=6), private organisations (n=5), and government organisations (n=10). Forty-one (66%) participants identified as belonging to a religious denomination. Of the religious participants, 26 identified as protestant Christian, seven as Catholic Christian, two as Muslim, one as Jewish, three as Humanist, and one as an atheist (22 non responses). Participant roles included frontline (n = 29) and non-frontline roles (n = 31).

**Covariance**

As shown in Table 1, the only statistically significant bivariate relationship was between religiosity and scores on the GHQ-12 (F = 4.45, p = .04). This result suggests that humanitarian aid personnel that identify as religious report lower levels of depression and anxiety related psychological distress. However, there is no difference in the trauma related psychological distress and social distress.

[Table 1 here]

**Replication of Previous Research**

As shown in Table 2, previous internal consistency results were replicated for the: IES-I, IES-A, and IES-H (Rash, Coffey, Baschnagel, Drobes, & Saladin, 2008; Weiss & Marmar, 1997); the SDHS (Joseph et al., 2004); the GHQ-12 (Hankins, 2008; Lesage, Martens-Resende, Deschamps, & Berjot, 2011); and the Alliance, Guidance, Opportunity for Nurturance, and Attachment factors of the SPS (Cutrona et al., 1986). There was poor internal consistency for the Social Integration and Reassurance of Worth factors of the SPS. Joseph et al. (2005) found high internal consistency for the long-form CIOQ. This study used the short-form CIOQ and found
poor internal consistency for the CIOQ-P factor and questionable internal consistency for the CIOQ-N factor.

[Table 2 here]

Previous research has suggested that the GHQ-12 is negatively associated with social support (Goldberg & Hillier, 1979; Harrison et al., 1999). Our findings supported this research because scores on the GHQ-12 were negatively associated with scores on the SPS (R = -.25, p = .05). The IES-R has been positively associated with anxiety and depression symptoms measured by the Beck Anxiety Inventory (BAI) and Beck Depression Inventory (BDI) (Beck et al., 2009; Rash et al., 2008). There is also much research associating BDI and BAI scores with the GHQ-12 (Goldberg & Hillier, 1979; Makowska, Merecz, Moscicka, & Kolasa, 2002; Nicholl, Lincoln, Francis, & Stephan, 2001). For this reason we expected to see a positive association between the IES-R and GHQ-12 scores. Scores on the IES-R were significantly associated with scores on the GHQ-12 (R = .37, p = .004).

Joseph et al. (2005) used the original IES rather than the IES-R and the long form changes in outlook questionnaire and found significant associations between CIOQ-N and IES-I, (R = .39, p < .001), CIOQ-P and IES-I (R = .29, p < .01), IES-A and CIOQ-N (R = .43, p < .001), and the GHQ-28 and CIOQ-N (R = .75, p < .001). They did not find any associations between CIOQ-P and IES-A or CIOQ-P and GHQ-28. Four of the six findings were replicated. There was a positive association between CIOQ-N and GHQ-12 (R = .64, p < .001) and no association between IES-A and CIOQ-P, and CIOQ-P and GHQ-12. The association between the IES-R and CIOQ-N (R = .23, p = .07) was trending to significance. Joseph et al. (2005) found a positive
association between IES-A and CIOQ-N and IES-I and CIOQ-P. The present research
did not find the same associations. However, there was a significant positive
association between CIOQ-N and IES-H (r = .25, p = .05).

**Internal Consistency Reliability**

The internal consistency for the PostAID/Q was high (Cronbach’s α = .82). McCormack and Joseph (2012) also found high internal consistency. Further, test removal of any single item did not result in a Cronbach’s alpha below .8. This demonstrates that the PostAID/Q is a reliable single factor measure.

**Convergent Validity**

Scores on the PostAID/Q were positively associated with scores on the IES-R (r = .38, p = .003), the CIOQ-N (r = .29, p = .02) and SDHS-D (r = .30, p = .02), and show a trend towards a statistically significant association with GHQ-12 scores (r = .21, p = .09). It is more similar to the IES-R than the GHQ-12, which suggests that it measures trauma related psychological distress rather than depression or anxiety related psychological distress.

Scores on the PostAID/Q were negatively associated with scores on the SPS (r = - .43, p < .001). These results demonstrate that the PostAID/Q is able to measure social distress. All of these results were as predicted. They suggest that PostAID/Q is able to measure psychological and social distress.

**Discriminant Validity**

Scores on the PostAID/Q were not associated with scores on the CIOQ-P or the SDHS-H, as expected. These results provide evidence of the PostAID/Q’s convergent and discriminant validity. Therefore, there is support for the construct validity of AID. That is, the PostAID/Q is a measure of psychosocial distress and is a
potentially valid theory of postmission psychosocial reintegration difficulties for humanitarian aid personnel (see figure 1).

Figure 1. provides a visual construction of how the GHQ-12, SPS, PostAID/Q, and the IES-R relate to each other. If the boxes that correspond to each questionnaire overlap with there is a statistically significant correlation between the questionnaires. The questionnaires that have correlations approaching significance have boxes that touch each other but do not overlap. The CIOQ and SDHS were excluded so that the figure was not overly complicated. The avoidance factor (IES-A) of the IES-R was correlated with the PostAID/Q but not with the GHQ-12. This is represented in the figure by the bottom third of the IES-R box not overlapping the GHQ-12 box.

**Incremental Validity**

In the first hierarchical regression, the GHQ-12 scores alone accounted for 13% of the variance in IES-R ($r^2 = .13, p = .004$). Adding the PostAID/Q to the model explained an additional 10% of the variation. This was a statistically significant improvement ($r^2 = .23$, $r^2$ change $= .10, p = .01$). The semi-partial correlation for GHQ-12 alone was $r = .37$. When the PostAID/Q was added to the model the GHQ-12 semi-partial correlation was significant ($r = .29, p = .02$). The PostAID/Q was also significant ($r = .31, p = .01$). This suggests that both GHQ-12 and PostAID/Q were statistically significant contributors to the measurement of psychological distress (see figure 2).

[Figure 1 here]

[Figure 2 here]
In the second hierarchical regression, GHQ accounted for 6% of the variation in SPS ($r^2 = .06, p = .05$) when PostAID/Q was added to the model, there was a 15% improvement in the measurement of SPS variance ($r^2 = .21, r^2\text{ change} = .15, p = .002$). The GHQ-12 semi-partial correlation coefficient was significant in the first step ($r = - .25, p = .05$). When the PostAID/Q was added, it’s semi partial correlation was significant ($r = -.39, p = .002$). In the second step the GHQ-12 contribution became non-significant (see figure 3). This indicated that PostAID/Q explained the variation in SPS that was being explained by GHQ-12, with the GHQ-12 no longer contributing significantly to the model. Thus, the PostAID/Q was able to account for variance of social distress over and above the GHQ-12.

[Figure 3 here]

**Theoretical Architecture of the AID Model**

The IES-I, IES-A, and IES-H factors accounted for 17.4% of the variance measured by the PostAID/Q ($p = .01$). When examining the semi-partial correlations, the IES-I factor accounted for the unique variance ($r = .26, p = .04$) and the other two factors were non-significant contributing factors.

The six SPS factors accounted for 25% of the PostAID/Q variance ($p = .01$). The Social Integration (SPS_SocInt) and Reassurance of Worth (SPS_WorthReass) factors combined in a model accounted for 22% of the variance ($p = .001$). The semi-partial correlation coefficients were significant for the SPS_SocInt ($R = -.26, p = .02$) and SPS_WorthReass factors ($R = -.24, p = .05$).

When IES-I, SPS_SocInt, and SPS_WorthReass were combined in a model, they accounted for 38% of the PostAID/Q variance. The semi-partial coefficients
were significant for the SPS_SocInt (R = -.27, p = .01) and IES-I factors (R = .39, p = .001). SPS_WorthReass was trending to significance R = -.2, p = .06). The improvement in the model that includes Reassurance of Worth was only slight (see figure 4). For this reason, it was excluded from the model of the theoretical architecture of AID.

A model with only the IES-I and SPS_SocInt factors accounted for 34% of the PostAID/Q variance (p < .001). Both semi-partial correlations were significant (IES-R R = .42, p < .001; SPS_SocInt R = -.41, p < .001). This result demonstrates that both factors are significant contributors to the measurement of PostAID/Q variance, the IES-I being the most significant psychological distress factor and the SPS_SocInt the most significant social distress factor. This has important clinical implications.

[Figure 4 here]

[Figure 5 here]

**Discussion**

The PostAID/Q is a humanitarian specific tool for measuring postmission reintegration distress in humanitarian aid personnel. The PostAID/Q demonstrated convergent validity through positive associations with the IES-R, CIOQ-N, and GHQ-12 and through a negative association with SPS. No associations with CIOQ-P and SDHS-H indicated discriminant validity. The PostAID/Q demonstrated incremental validity in the measurement of psychological and social distress compared to the GHQ-12.
Employing international humanitarian organizations can utilize this tool alongside other measures of symptom severity for distress when reintegrating returnees from overseas deployment. However, its benefit is that it will highlight distress specific to reintegration difficulties that might otherwise be missed with traditional postmission assessments. Furthermore it can be used as a screening tool to assess readiness for redeployment in those seeking to return to the field.

The main advantage of the PostAID/Q is that it uses the construct of Altruistic Identity/Altruistic Identity Disruption to provide an understanding of the specific difficulties humanitarian individuals experience post mission when trying to integrate their aid experiences with returning to family life, careers, and their communities. It recognizes that complex psychosocial challenges may complicate healthy psychological adjustment if the right support is not forthcoming by deploying organizations. That support needs to be tailored to increasing robust altruistic identities of personnel that can reduce burnout and turnover of staff, and provide the platform for effective and healthy family reintegration and organizational validation.

Importantly, we were able to demonstrate the internal consistency reliability of the PostAID/Q. This result provides credibility to earlier research that suggested the PostAID/Q was a single factor measure of psychosocial distress, namely Altruistic Identity/Altruistic Identity Disruption (AID).

The PostAID/Q demonstrated the convergent validity through positive associations with the IES-R, SDHS-D, CIOQ-N, and GHQ-12. The PostAID/Q demonstrated discriminant validity through negative association with the SPS and no associations with the CIOQ-P and SDHS_H, thus indicating the construct validity of the PostAID-Q. The results are an important step forward for the humanitarian aid field because AID is the first valid reintegration distress construct that has been
specifically developed with and for humanitarian aid personnel. An understanding that personnel face increased risk of AID allows sending organizations to tailor support structures to account for possible psychosocial distress and provide collaborative care that can sustain and nurture personnel during the postmission phase. It can also indicate redeployment readiness in the deployment phase.

The PostAID/Q demonstrated incremental validity in that it can account for additional measurement of psychological distress compared to the GHQ-12. Also, it is a superior predictor of social distress compared to the GHQ-12. An important component of incremental validity is cost and time considerations (Hunsley & Meyer, 2003). The PostAID/Q would be easier to complete and score than completing both the IES-R and SPS because it has fewer questions and scoring requirements. It is also more accessible for aid organizations than the range of General Health Questionnaires because it does not require any permission or purchases to use. It is readily available to any organizations that wish to use it. The PostAID/Q demonstrates incremental validity when considering statistical, time, and cost issues. This is important because it suggests that the PostAID/Q is the most valid questionnaire when measuring reintegration difficulties of humanitarian aid personnel.

The Intrusion factor from the IES-R (IES-I) accounted for 17% of the variance the PostAID/Q measures. The clinical implication of this is that personnel who have high PostAID/Q scores have an increased chance of having intrusive thoughts or memories due to a trauma reaction. The social integration factor of the SPS (SPS_SocInt) also accounted for 17% of PostAID/Q variance, which indicated that personnel with high PostAID/Q scores are likely to experience difficulty with social integration. This variance was unique to the IES-I variance. This means that together, the intrusion factor and the social integration factor account for 34% of PostAID/Q
variance. In other words, one third of what the PostAID/Q measures is due to intrusion and a lack of social integration. This fits with the theory of AID, which states that personnel are likely to go through psychological and social distress. The importance of this finding is that it adds further specificity to the theory and can inform the effective psychosocial treatment of aid personnel. For example, a respondent who scored above 72 on the PostAID/Q would have an increased chance of having intrusion due to trauma and/or a lack of or antagonistic social integration. This information could guide the assessment and intervention of a psychologist or anyone involved in the care processes.

This study has provided further evidence of the psychometric properties of the PostAID/Q. That is, the PostAID/Q has demonstrated internal consistency reliability, construct validity, and incremental validity. This indicates that humanitarian organizations can consider using the PostAID/Q as part of the existing support structures for their returning personnel.

The PostAID/Q is not designed to be diagnostic of any psychological morbidity. Instead was developed to provide an indication to organizations and personnel that returnees may be dissatisfied with outcomes of mission and/or existing support structures, which are manifested by interrelated behaviours, thoughts, and emotions. We suggest that the PostAID/Q be used to facilitate a collaborative reintegration process between personnel and their organization to: (a) understand the psychosocial responses to their work experiences; (b) provide valuable feedback about humanitarian aid personnel experiences; (c) provide the basis for informing family and friends on the psychosocial processes that personnel experience and informing organizations of potential psychoeducation input required, and (d) monitor and support personnel during the reintegration and redeployment stages.
Previous research has shown that scores above 72 are suggestive of further investigation of the effects of AID and of humanitarian aid personnel needing further support (McCormack & Joseph, 2013). Personnel who score above this threshold should be provided with appropriate organizational and psychological support. Scores below 72 indicate a low level of AID and is a guide for readiness for deployment (McCormack & Joseph, 2013). Care should be taken in the interpretation of the scores. It would be unwise for sending organizations to base decisions of readiness or support solely on PostAID/Q scores. The questionnaire should be used in conjunction with comprehensive care procedures. Scores above the threshold should be the start of an inclusive and transparent discussion about a plan for support and further psychological assessment.

It is important to note that whilst high scores indicate a high level of psychosocial distress, it is not necessarily a bad thing or negative thing to experience. According to the Organismic Valuing Theory of Growth Through Adversity (Joseph & Linley, 2005), people who have more intrusion than avoidance after a traumatic experience have the greater potential for posttraumatic growth. Personnel who have high scores on the PostAID/Q may not be ready for redeployment in the short-term. However, given the likelihood for experiencing intrusion combined with the likelihood of higher levels of altruism (McCormack, 2010), with appropriate social and organizational support, they have a high possibility of experiencing posttraumatic growth. Such personnel would be assets to sending organizations. If personnel do not receive the appropriate support, they are at risk of developing psychological morbidities such as PTSD, depression, anxiety, or burnout.

**Limitations**
All of the participants were treated independently. However, there were three couples (total of six participants) that were in long-term relationships. No attempt was made in accounting for clustering effects like participants coming from the same country or aid organization.

The short form CIOQ was used instead of the long form CIOQ. The internal consistency of the short form was poor, which limited the meaningful conclusions that could be made. Also, very little research has been conducted using the short form CIOQ. The long form CIOQ would have improved this study because it has far more support in the scientific literature.

The internal consistency of the most significant social distress factors, Social Integration and Reassurance of Worth, had poor internal consistency. This means that they are unlikely to measure single factors, instead tapping into multiple constructs. It is, therefore, difficult to draw valid conclusions on the clinical implications due to these two factors.

The sample may not have been a valid representation of the humanitarian aid field. An assumption was made that national and expatriate personnel and developmental personnel are all faced with similar risk of primary and vicarious trauma. Whilst it is true that all three groups face risk of trauma, the level of risk is greatest in national humanitarian personnel compared to expatriate personnel (Cardozo et al., 2005). There is little research comparing the levels of primary and vicarious trauma between humanitarian and development personnel. Anecdotally, there may be a greater risk of primary trauma in humanitarian personnel.

The assumption that there are little differences between humanitarian aid personnel and development personnel may be valid because there were no significant differences in IES-R or PostAID/Q scores for the type of work variable. However,
future research should account national and expatriate personnel given the demonstrated difference in trauma levels.

Time since last deployment was not measured in this study, which is a possible confound. All the questionnaires were self-report measures. If the time since last deployment was significant the recall of events has been affected by time and new experiences. In future research, time since last deployment should be measured.

**Future Research**

Inter-rater and test-retest reliability of the PostAID/Q needs to be established. This study has provided evidence for the internal consistency reliability of the PostAID/Q. Future research should compare different samples in accordance with existing methods of establishing reliability (Conybeare, Behar, Solomon, Newman, & Borkovec, 2012; Hankins, 2008; Hunsley & Meyer, 2003; Joseph et al., 2012; McCormack & Joseph, 2013).

One risk of establishing the validity of a psychometric measure using only questionnaire data is that any significant effects found could be due to similar items between the questionnaires. This creates a false impression of validity (Garb, 2003; Haynes & Lench, 2003; Hunsley, 2003; Hunsley & Meyer, 2003). Future research should compare questionnaire data to other types of data, for example, clinician assessment.

Further research should also focus on understanding the theoretical architecture of the AID construct. According to the AID construct, humanitarian aid personnel have increased potential to experience reintegration difficulties due to postmission psychosocial distress. This research has demonstrated that 34% of the variance in the PostAID/Q is accounted for by intrusion related traumatic distress (IES-I) and a lack of social support into existing and new communities (SPS_SocInt).
These results suggested that Social Integration is the most crucial social support factor for people who score highly on the PostAID/Q. Caution must be taken in the interpretation of this result because the internal consistency of the social integration factor is poor, suggesting that the Social Integration factor is a vague construct tapping into more than one factor.

The PostAID/Q measures intrusive thoughts and social integration problems specific to international work. This means that it may be relevant for use with returning military personnel. Future research should determine if the PostAID/Q is a reliable and valid measure for use with military personnel. An early detection tool for psychosocial distress like the PostAID/Q may improve early detection of potential problems for military personnel and can aid early intervention strategies.

Further research should focus on accounting for the remaining 66% of the variance in the PostAID/Q. One such factor could be moral injury. Moral injury is defined as any act or passive lack of action that has a deleterious effect on a person physically, socially, psychologically, or spiritually (Johnston & Murray, 2003). Moral injury has been demonstrated in military personnel who perpetrate, bear witness to, or fail to prevent acts that they find deeply immoral (Drescher et al., 2011; Litz et al., 2009). Because humanitarian personnel often experience war torn situations like military personnel, especially the witnessing and inability to prevent immoral acts, humanitarian personnel may go through a similar process of moral injury. Future research should ascertain whether moral injury could explain PostAID/Q variance.

The AID construct promises to be a useful construct for not simply humanitarian aid personnel. Given the possibility of moral injury being implicated in AID, military personnel may also benefit from the use of the AID construct. It is also possible that emergency personnel such as police, fire fighter, ambulance, rescue
teams, and hospital emergency staff may benefit from this construct. Emergency personnel are often driven by a desire to help, or altruism (Moran, 1994). They also face a high level of risk of trauma (McFarlane & Bookless, 2001). Future research should focus on the application of AID for these different groups of personnel.

One of the interesting results was that religious humanitarian personnel scored lower on the GHQ-12 than non-religious personnel. This result was not found for any other questionnaire. One explanation is that religiosity can contribute to the resolution of depression symptoms rather than preventing the development of them as found by Braam, Beekman, Deeg, Smit, and van Tilburg (1997).

**Conclusion**

We would suggest that for humanitarian aid personnel who score highly (72 or above) on the PostAID/Q, further clinical exploration is warranted. AID can cause individuals to feel isolated, invalidated and alienated from family, friends or work colleagues who have not experienced aid work. They may sense judgment and turn to self-blaming behaviours. Paradoxically, early redeployment is a risk as AID can cause individuals to seek out other aid workers back in the field at a time when they are most vulnerable. Because 17% of PostAID/Q variance is accounted for by the intrusion factor of the IES-R, support should focus on establishing the presence or not of intrusive thoughts, emotions, or memories in response to primary or vicarious trauma for personnel who have high PostAID/Q scores.

Sending organizations can use the PostAID/Q collaboratively with their aid personnel to: (a) assist personnel to self-monitor their psychosocial responses to aid experiences; (b) value feedback about aid experiences, particularly perceived lack of support from the sending organization; (c) use as a basis for psychoeducational input with partners and families of the returning aid personnel regarding reintegration.
difficulties; and (d) use as a regular monitoring tool of personnel reintegration into the workplace, society, and relationships. Doing so is likely to decrease the poor retention rates currently common in the humanitarian aid field and increase the size of the humanitarian workforce ready to be redeployed.

The PostAID/Q promises to be a useful tool in clinical research into psychosocial reintegration difficulties and redeployment readiness of humanitarian aid personnel. For personnel, it can be used to self-monitor reintegration difficulties and highlight if further support is required. Used by sending organizations, the PostAID/Q can guide support of personnel postmission and inform them of reintegration difficulties and redeployment readiness, thus increasing staff support and retention. Thus, sending organizations will be able to better meet their ethical obligations for supporting personnel and decrease costs associated with high personnel turnover.

The PostAID/Q proves to be an extremely useful tool as there is myriad research pointing to an increase demand in the humanitarian aid sector with the promise of prolonged conflict, natural disasters and often a combination of the two. As this occurs, the physical, psychosocial health of humanitarian personnel is going to become even more essential.
**Declaration of Conflicting Interest**

The authors did not have any conflict of interest in the current research with respect to the research, authorship, and/or publication of this article.

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References.


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Wahlström, L., Michélsen, H., Schulman, A., & Backheden, M. (2008). Different types of exposure to the 2004 tsunami are associated with different levels of


Appendix A  Psychological Trauma: Theory, Research, Practice, and Policy Aims, Scope, and Author Guidelines

Psychological Trauma: Theory, Research, Practice, and Policy

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Outgoing Editor: Steven N. Gold

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*Psychological Trauma: Theory, Research, Practice, and Policy*® publishes empirical research on the psychological effects of trauma. The journal is intended to be a forum for an interdisciplinary discussion on trauma, blending science, theory, practice, and policy.

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• Psychological treatments and effects
• Promotion of education about effects of and treatment for trauma
• Assessment and diagnosis of trauma
• Pathophysiology of trauma reactions
• Health services (delivery of services to trauma populations)
• Epidemiological studies and risk factor studies
• Neuroimaging studies
• Trauma and cultural competence

The journal publishes articles that use experimental and correlational methods and qualitative analyses, if applicable.

All research reports should reflect methodologically rigorous designs that aim to significantly enhance the field's understanding of trauma. Such reports should be based on good theoretical foundations and integrate theory and data. Manuscripts should be of sufficient length to ensure theoretical and methodological competence.

**Psychological Trauma: Theory, Research, Practice, and Policy**

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Online ISSN: 1942-969X

Author Guidelines

Submission

Submit manuscripts electronically through the Manuscript Submission Portal (.doc or .docx files).

Steven N. Gold, PhD

Nova Southeastern University

Center for Psychological Studies

3301 College Ave.

Fort Lauderdale, FL 33314

General correspondence may be directed to the Editor's Office.
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Keep a copy of the manuscript to guard against loss.

Length

Manuscripts for Psychological Trauma: Theory, Research, Practice, and Policy can vary in length, but may not exceed 28 double-spaced manuscript pages (including title page, abstract, manuscript body, references, and tables/figures.) Manuscripts that exceed this length may be returned without review.

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If your manuscript was mask reviewed, please ensure that the final version for production includes a byline and full author note for typesetting.

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We strongly encourage you to use MathType (third-party software) or Equation Editor 3.0 (built into pre-2007 versions of Word) to construct your equations, rather than the equation support that is built into Word 2007 and Word 2010. Equations composed with the built-in Word 2007/Word 2010 equation support are converted to low-resolution graphics when they enter the production process and must be rekeyed by the typesetter, which may introduce errors.

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• Go to the Text section of the Insert tab and select Object.
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If you have an equation that has already been produced using Microsoft Word 2007 or 2010 and you have access to the full version of MathType 6.5 or later, you can convert this equation to MathType by clicking on MathType Insert Equation. Copy the equation from Microsoft Word and paste it into the MathType box. Verify that your equation is correct, click File, and then click Update. Your equation has now been inserted into your Word file as a MathType Equation.

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If you would like to include code in the text of your published manuscript, please
submit a separate file with your code exactly as you want it to appear, using Courier
New font with a type size of 8 points. We will make an image of each segment of
code in your article that exceeds 40 characters in length. (Shorter snippets of code that
appear in text will be typeset in Courier New and run in with the rest of the text.) If an
appendix contains a mix of code and explanatory text, please submit a file that
contains the entire appendix, with the code keyed in 8-point Courier New.

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Use Word's Insert Table function when you create tables. Using spaces or tabs
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All manuscripts must include an abstract containing a maximum of 250 words
typed on a separate page. After the abstract, please supply up to five keywords or
brief phrases.

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List references in alphabetical order. Each listed reference should be cited in
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http://dx.doi.org/10.1037/a0028566

• **Authored Book:**


• **Chapter in an Edited Book:**


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Appendix B  Table 1. Summary of Means Bivariate Relationships between Demographic Variables and Questionnaires

Table 1  
*Summary of Means Bivariate Relationships between Demographic Variables and Questionnaires (Standard Deviation in Parentheses)*

<table>
<thead>
<tr>
<th>Demographic Question</th>
<th>PostAID/Q</th>
<th>GHQ-12</th>
<th>IES-R</th>
<th>SPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>54.71 (14.31)</td>
<td>10.63 (6.02)</td>
<td>21.63 (17.51)</td>
<td>80.71 (8.52)</td>
</tr>
<tr>
<td>Female</td>
<td>61.25 (12.19)</td>
<td>12.19 (4.84)</td>
<td>24.11 (16.53)</td>
<td>76.50 (11.40)</td>
</tr>
<tr>
<td>Role</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frontline</td>
<td>58.34 (12.88)</td>
<td>12.14 (5.97)</td>
<td>24.31 (16.35)</td>
<td>77.90 (10.60)</td>
</tr>
<tr>
<td>Non-Frontline</td>
<td>58.90 (5.25)</td>
<td>11.03 (5.25)</td>
<td>22.00 (17.84)</td>
<td>78.45 (10.53)</td>
</tr>
<tr>
<td>Religious</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>58.41 (14.38)</td>
<td>10.80 (4.59)*</td>
<td>22.85 (16.92)</td>
<td>78.93 (11.30)</td>
</tr>
<tr>
<td>No</td>
<td>61.00 (13.05)</td>
<td>14.06 (6.89)*</td>
<td>23.86 (17.09)</td>
<td>75.29 (7.95)</td>
</tr>
<tr>
<td>Age Category</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Young</td>
<td>57.84 (14.38)</td>
<td>13.21 (5.93)</td>
<td>24.05 (17.53)</td>
<td>78.21 (12.50)</td>
</tr>
<tr>
<td>Middle Aged</td>
<td>57.54 (16.28)</td>
<td>9.92 (4.64)</td>
<td>21.85 (17.40)</td>
<td>80.27 (8.61)</td>
</tr>
<tr>
<td>Experienced</td>
<td>61.53 (9.86)</td>
<td>12.33 (6.22)</td>
<td>24.13 (16.75)</td>
<td>74.53 (10.25)</td>
</tr>
</tbody>
</table>

Notes. * = $p < .05$
Appendix C  Table 2. Internal Consistency of Current Research Compared to Previous Research

Table 2

*Internal Consistency of Current Research Compared to Previous Research*

<table>
<thead>
<tr>
<th>Measure</th>
<th>Current Research</th>
<th>Previous Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>IES-I</td>
<td>$\alpha = .90$</td>
<td>$\alpha = .87 - .95$</td>
</tr>
<tr>
<td>IES-A</td>
<td>$\alpha = .87$</td>
<td>$\alpha = .84 - .85$</td>
</tr>
<tr>
<td>IES-H</td>
<td>$\alpha = .87$</td>
<td>$\alpha = .79 - .91$</td>
</tr>
<tr>
<td>GHQ-12</td>
<td>$\alpha = .85$</td>
<td>$\alpha = .90 - .94$</td>
</tr>
<tr>
<td>SDHS</td>
<td>$\alpha = .79$</td>
<td>$\alpha = .77 - .92$</td>
</tr>
<tr>
<td>CIOQ-P</td>
<td>$\alpha = .57^a$</td>
<td>$\alpha = .80 - .87^b$</td>
</tr>
<tr>
<td>CIOQ-N</td>
<td>$\alpha = .67^a$</td>
<td>$\alpha = .86 - .88^b$</td>
</tr>
<tr>
<td>PostAID/Q</td>
<td>$\alpha = .82$</td>
<td>$\alpha = .84$</td>
</tr>
</tbody>
</table>

Note. $^a$ Short-Form CIOQ. $^b$ Long-Form CIOQ
Figure 1. Conceptualization of the Associations Between the GHQ-12, IES-R, SPS, and PostAID/Q.

Figure 1. Conceptualization of the Associations Between the GHQ-12, IES-R, SPS, and PostAID/Q.
Appendix E  

Figure 2. Conceptualization of the Contribution the GHQ-12 and PostAID/Q to the Measurement of IES-R Variance.

Figure 2. Conceptualization of the Contribution the GHQ-12 and PostAID/Q to the Measurement of IES-R Variance.
Appendix F  Figure 3. Conceptualization of the Contribution the GHQ-12 and PostAID/Q make to the Measurement of SPS Variance.

Figure 3. Conceptualization of the Contribution the GHQ-12 and PostAID/Q make to the Measurement of SPS Variance.
Appendix G  Figure 4. Conceptualization of the Contribution the IES-I, SPS_SocInt, SPS_WorthReass to the Measurement of PostAID/Q Variance.
Appendix H  Figure 5. Conceptualization of the Contribution the IES-I and SPS_SocInt to the Measurement of PostAID/Q Variance.

Figure 5. Conceptualization of the Contribution the IES-I and SPS_SocInt to the Measurement of PostAID/Q Variance.
Appendix I  Correlation Matrices Between the Various Questionnaires

<table>
<thead>
<tr>
<th>PostAID_Q</th>
<th>GHQ_12</th>
<th>SPS_TOTAL</th>
<th>IES</th>
<th>IES_I</th>
<th>IES_A</th>
<th>IES_H</th>
</tr>
</thead>
<tbody>
<tr>
<td>PostAID_Q</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>0.219</td>
<td>-0.434**</td>
<td>.381**</td>
<td>.416**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td>0.091</td>
<td>0</td>
<td>0.003</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>62</td>
<td>61</td>
<td>61</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>GHQ_12</td>
<td>Pearson Correlation</td>
<td>0.219</td>
<td>1</td>
<td>-0.252*</td>
<td>.365**</td>
<td>.349**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td>0.091</td>
<td>0.05</td>
<td>0.004</td>
<td>0.006</td>
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<td></td>
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<td>61</td>
<td>61</td>
<td>61</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>SPS_TOTAL</td>
<td>Pearson Correlation</td>
<td>-0.434**</td>
<td>-0.252*</td>
<td>1</td>
<td>-0.173</td>
<td>-0.22</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td>0</td>
<td>0.05</td>
<td>0.186</td>
<td>0.091</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>61</td>
<td>61</td>
<td>61</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>IES</td>
<td>Pearson Correlation</td>
<td>.381**</td>
<td>.365**</td>
<td>-0.173</td>
<td>1</td>
<td>.927**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td>0.003</td>
<td>0.006</td>
<td>0.186</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>IES_I</td>
<td>Pearson Correlation</td>
<td>.416**</td>
<td>.349**</td>
<td>-0.22</td>
<td>.927**</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td>0.001</td>
<td>0.004</td>
<td>0.091</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
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** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

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* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
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** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).
Appendix J  Regression Tables

Regression Table 1: IES-R dependent variable. GHQ-12 and PostAID/Q predictor variables.

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<th>F Change</th>
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* a Predictors: (Constant), SPS_SocInt
* b Predictors: (Constant), SPS_SocInt, IES_I
* c Predictors: (Constant), SPS_SocInt, IES_I, SPS_WorthReass
* d Dependent Variable: PostAID_Q

Regression Table 2: SPS dependent variable. GHQ-12 and PostAID/Q predictor variables.

Regression Table 3: PostAID/Q dependent variable. IES-I, SPS-SocInt, and SPS-WorthReass predictor variables.
Appendix K  Postmission Altruistic Identity Questionnaire

PostAID/Q (© author)

Below are some statements made by humanitarian personnel following experiences in the field. Think about your own aid experiences and how they have influenced you in regard to the following statements over the past month.

Please indicate how much you disagree/agree with each of the statements.

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<tr>
<th>Number</th>
<th>Statement</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Strongly Agree</th>
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<td>I was quite badly affected by some of the things I experienced while in the field</td>
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<td>2.</td>
<td>I tend to block out all sorts of aid experience</td>
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<td>3.</td>
<td>I have been left with a lot of internal doubts from my aid work</td>
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<td>4.</td>
<td>On mission, I found there were times when I seemed to be going off the rails</td>
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<tr>
<td>5.</td>
<td>I felt a sense of being personally eroded while on mission</td>
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<tr>
<td>6.</td>
<td>Sometimes I feel that I just achieved nothing on mission</td>
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<td>7.</td>
<td>I feel angry with people in aid organizations who think there are easy solutions</td>
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<td>8.</td>
<td>I don’t think aid work makes people more happy</td>
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<td>9.</td>
<td>Back home, if I start talking about events that happened in the field, I find people are desperate to get away from me</td>
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<td>10.</td>
<td>I find it difficult to share my aid stories with family and friends back home</td>
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<tr>
<td>11.</td>
<td>I find it hard to feel the same about my relationships back home since aid work</td>
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<tr>
<td>12.</td>
<td>I found it self-reassuring when I had an emotional reaction to events in the field</td>
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<td>13.</td>
<td>I feel undervalued by the organization that sent me on aid work</td>
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<td>14.</td>
<td>I tend to blame myself if things go wrong on mission</td>
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<tr>
<td>15.</td>
<td>I feel very satisfied with the way my work has gone for me in the aid world</td>
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<td>I have ended up with feelings of loss and sadness from aid work</td>
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