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Clark Campbell [a]; Donell Campbell [b]; David Krier [c]; Ryan Kuehlthau [a]; Todd Hilmes [a]; Melissa Stromberger [a]
[a] Graduate Department of Clinical Psychology, George Fox University, Newberg, OR, 97132 USA [b] Providence Newberg Medical Center, Newberg, OR, USA [c] Center for Personal Restoration, St. Paul, OR, USA

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# Reduction in burnout may be a benefit for short-term medical mission volunteers

Clark Campbell[a]*, Donell Campbell[b], David Krier[c], Ryan Kuehlthau[a], Todd Hilmes[a] and Melissa Stromberger[a]

[a]*Graduate Department of Clinical Psychology, George Fox University, 414 N. Meridian Street, Newberg, OR, 97132 USA;* [b]*Providence Newberg Medical Center, Newberg, OR, USA;* [c]*Center for Personal Restoration, St. Paul, OR, USA*

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This study explored changes in burnout scores following volunteer international non-disaster medical mission service. Maslach, Jackson, and Leiter (1996) conceptualised burnout as involving emotional exhaustion, a sense of depersonalisation, and a lack of personal accomplishments in the workplace. Thirty-six short-term mission workers (mostly physicians and nurses) provided medical care in South America on one of four service brigades. The group scored in the moderate range on all three scales of burnout prior to embarking on the mission trips. Stressful aspects of medical practice (such as lack of control over personal time and pressure to see more patients in less time) were rated and correlated with the burnout scales. The burnout scores improved following short-term mission service and continued to improve at a six-month follow-up. Perhaps a reduction in burnout is one of the benefits of short-term mission work, and further study of this benefit is recommended.

**Keywords:** short-term missions; medical; burnout

Since short-term mission trips rarely provide financial remuneration, one way to conceptualise this service is as a form of volunteerism. People may volunteer for missions with the idea that they will provide necessary services to needy recipients. Yet, a common remark heard among those returning from such mission trips is, ''I didn't realize how much I would benefit from doing this. I thought I was giving to them, but they actually gave to me.'' This research is an attempt to evaluate some of the benefits of short-term medical missions upon those providing this service.

There are many opportunities for volunteer service, both internationally and within the countries of origin. In fact, several non-profit organisations depend extensively on the service of volunteer workers for successful operation (e.g., Red Cross, Habitat for Humanity, Peace Corp). Some volunteer opportunities exist as the result of natural disasters or war, while other opportunities address ongoing needs for adequate food, water, housing, and health. Similarly, volunteers provide a wide range of professional and non-professional services for varying lengths of time.

*Corresponding author. Email: ccampbell@georgefox.edu

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Although there are limited data on international volunteering, some data suggest that volunteering is on the rise in America. The Corporation for National and Community Service indicated that approximately 61 million Americans volunteered in 2007, and this number is expected to continue rising in the near future (www.volunteeringinamerica.gov).

Physicians constitute one group of professionals that have provided volunteer service. In 1990, the International Medical Volunteers Association surveyed 1000 physicians and medical students and found that 11% would strongly consider providing foreign medical service. Reasons given for this service included: a desire to help, exposure to new problems, a chance to put philosophical convictions into action, a belief that such work is inherently worthwhile, and feeling guilty that one is comparatively well-off (www.imva.org).

### *Positive and negative effects of short-term mission service*

A specific form of volunteer service is that of short-term mission work. This experience may be relatively brief (a week or less) or relatively long (up to a year). It may involve professional services such as medical or dental work, or it may involve high school or college students constructing a house or teaching Bible classes. Short-term mission opportunities have increased in the last couple of decades. Jeffrey (2001) notes,

> The concept of sending mission teams for short-term work has grown increasingly popular in the U.S. congregations. People are not excited about sending their dollars off to faceless mission agencies; they want to become personally involved. Encouraged by the testimony of others who have had a life-changing experience in a Third World country, they want to "do mission" themselves. (p. 5)

Similarly, Walling et al. (2006) state, "Over the last 20 years, missiologists have noted a dramatic increase in the number of short-term mission projects...The rise in popularity is so great that the decades of the 1980s and 1990s are known as the era of the short-term mission boom" (p. 153).

The positive effects of short-term missions on a variety of volunteers have been reported. Walling et al. (2006) noted these experiences often resulted in positive changes in sibling and parental relationships for college-age students. Similarly, they listed changes in views about clothing, dating, achievement, and global perspectives. An immersion in another culture seemed to promote reflection and evaluation on one's own culture and had ramification for one's views on power and privilege.

The effects on short-term missionaries, however, have not always been positive. Barnett, Duvall, Edwards, and Hall (2005) reported negative changes in some who volunteer internationally. Some developed physical and emotional problems that required them to return home earlier than anticipated. Furthermore, data on career missionaries indicated that 5.1% of the mission force returns home every year and that 71% left the work for preventable reasons (reported in Barnett et al., 2005). Although it is not clear whether the same negative effects would be evident in short-term missionaries, it is likely that the impact of cross-cultural immersion would be both positive and negative. While short-term service may have positive and negative effects, there is also evidence that personal qualities may affect one's adjustment in an international context. In an evaluation of short-term missionaries, Barnett et al. (2005) found that psychopathology, object-relations development, and spiritual development were related to psychological adjustment on the mission field.

The subjective experience of providing short-term mission service seems to be positive. In describing a common reaction to short-term mission work, a Nicaraguan religious

leader stated, ''They come here thinking they're going to give something to us, but many discover that instead they receive, from people who have almost nothing, a new experience of hope, faith and love'' (Jeffrey, 2001, p. 6). Piliavin (2003) summarised the work of Midlarsky (1991) and reported five reasons why helping others may benefit the helper. Helping others: (1) provides a distraction from one's own troubles, (2) enhances a sense of meaningfulness in life, (3) results in positive self-evaluations, (4) increases positive moods, and (5) enhances social integration through interpersonal connections.

### *The stress of medical practice*

A sea change in the practice of medicine in the United States has occurred in the last few decades. Multiple forces have accounted for the massive changes in practice, including rapidly changing diagnostic and therapeutic technology, economic pressures guided by insurance reimbursement strategies, and public demands for quality care that is personal, professional, and economical.

One aspect of working internationally with underserved populations (in a non-disaster setting) is that it has appeal for healthcare workers because there are few, if any, institutional and organisational issues to deal with such as insurance demands and/or treatment constraints. Also, the lack of technology allows physicians and nurses to work with patients in a more personal manner. The likelihood that one can see the effects of his or her interventions is enhanced as the doctor–patient interaction takes a primary healing role. To paraphrase one physician, ''In this environment I am free to do what I was trained to do and to spend as much time with a patient as I want to.''

Quality of care has become centrally important in many health care systems as indicated by recent moves of health insurers to link a portion of their payment to physicians to quality indicators (Epstein, Lee, & Hamel, 2004). Physicians have reported that reduction in their constitutional resources may lead to the provision of less than optimal patient care (Mechanic, 2003).

In the industrialised countries, ballooning healthcare costs, advancement in medical technologies, aging patient populations, and rising consumerism in healthcare have led to groundbreaking changes in the delivery of medical services. Changes such as evidence-based medicine, case management, disease management, continuous quality improvement, and demand for patient-focused care are now commonplace in the healthcare field. It is no surprise that as a result of these developments, and the increasing demands they make on the content, subject matter, and organisational context of a physician's work, recent studies have documented spiralling rates of physician burnout across the industrialised world (Kushnir, Levhar, & Cohen, 2004; Visser, Smets, Oort, & De Haes, 2003).

Maslach, Jackson, and Leiter (1996) conceptualised burnout as involving emotional exhaustion (EE), a sense of depersonalisation (DP), and a lack of personal accomplishments (PAs) in the workplace. Those who provide care or work with others interpersonally are particularly vulnerable. As a consequence of this burnout, the quality of healthcare delivery may be suffering (Gaba & Howard, 2002). Recent research has emphasised the negative effect of burnout on aspects of job performance including reduced quality of care (Demerouti, Verbeke, & Bakker, 2005) and increased medical errors (Crane, 1998). Spickard, Gabbe, and Christensen (2002) linked increasing occupational dissatisfaction among generalist and specialist physicians with burnout and deterioration in well-being.

This study sought to address the effect of short-term international medical mission service on burnout. Specifically, we were interested in whether this type of volunteer

service had a positive impact on burnout and whether this impact was sustained after the service ended.

## Method

### *Participants*

Participants in this study were volunteers in medical mission trips organised by The Center for Personal Restoration (CPR). CPR is a small, non-profit, non-denominational organisation that is devoted to facilitating personal renewal for health care professionals through volunteer service (www.cprestoration.org). A service brigade is organised at least once yearly to provide medical services in developing countries. CPR is committed to providing basic medical services in underserved international locations where volunteers can work in conjunction with local medical and religious leaders. Most of the medical service trips have been to Peru and have consisted of small groups of physicians and nurses. They do not do disaster relief work. A unique aspect of CPR's mission is the emphasis on the benefits to the care provider in doing international volunteer service. The philosophy of the organisation is that service to others that is not tied to bureaucratic and technological requirements brings physicians and nurses in closer contact with patients and results in greater work satisfaction.

Four brigades were organised between 2002 and 2007 that involved approximately 56 volunteers. The brigades were organised and led by the President of CPR – a physician who developed the mission service programme. The brigades typically lasted 14–15 days and consisted of approximately 10 days of volunteer work followed by four days of sightseeing and touring the various landmarks of Peru. The participants involved in this study worked with a local Catholic parish in Arequipa, Peru, to provide a medical clinic for anyone in the community who requested care. The parish priest developed a medical and psychological clinic that is staffed by local practitioners. When a mission brigade is organised, additional services are available to local people for little or no cost. Typically, each trip serves about 1000 patients, nearly two-thirds of whom are children. Medicines and follow-up care are provided in the established medical clinic associated with the parish.

Of the 56 volunteers, 36 consented to participate in this research project, for a participation rate of 64%. Of the 36 volunteers, 25 (69%) were physicians or nurses. Some of the volunteers did not have a medical background, but were interested in using their skills in any way possible to assist with the overall medical mission. The age of the volunteers ranged from 18 to 69, and the median age was 51. In regard to gender, 57% of the volunteers were female and 43% were male. A majority of the volunteers were European American (88%), while 6% were Asian and 6% indicated "other" ethnicity. Primary care was the typical medical practice area, and the median years of practice were 20. Most worked approximately 40–50 hours per week in their profession.

### *Procedure*

Each participant completed the Maslach Burnout Inventory (MBI; Maslach et al., 1996), a questionnaire regarding demographic and background information, and a questionnaire regarding stressors experienced in the last year prior to the volunteer service trip. Since our goal was to evaluate changes in perceived burnout as well as initial levels of burnout, the MBI was administered one month after return and again six months following return from the mission trip. All data were collected by mailing surveys to the participants at their

home addresses and providing return envelopes. Data were collected on the four brigades and entered into SPSS for statistical evaluation.

### *Instruments*

#### *Demographic and background information*

The research project involved completion of a short questionnaire about their medical specialty, years in practice, and demographic information (e.g. age, sex, and ethnicity). Participants also reported an estimate of the average number of hours worked in their profession weekly.

#### *Stressor questionnaire*

The authors developed a short questionnaire pertaining to occupational stressors experienced in the last year. The questionnaire was based on informal interviews with a physician and two nurses and yielded 13 items rated on a five-point Likert-type scale. Participants were asked to rate each item from 1 (not at all stressful) to 5 (very stressful).



#### *Maslach Burnout Inventory*

The MBI was developed in 1981 by Maslach and Jackson and was designed to measure the construct of occupational burnout. Deterioration in the quality of service provided by staff, job turnover, absenteeism, and low morale have been attributed to burnout (Maslach et al., 1996). Because of the intense nature of interpersonal work involved in human service professions, the Human Services Survey (MBI-HSS) version of the MBI was developed (Maslach et al., 1996).

The MBI-HSS was used in this research project since it provided norms on medical workers. Three subscales of the MBI-HSS were created through factor analysis: EE measures one's feelings of being overextended emotionally; DP assesses an impersonal response towards patients; PA evaluates feelings of success and achievement. Thus, burnout is conceptualised as high scores on EE and DP, and conversely a low score on PA.

Reliability was evaluated by Cronbach coefficient alphas, which were 0.90 for EE, 0.79 for DP, and 0.71 for PA (Maslach et al., 1996). Various test-retest reliability correlations have been reported that varied from 0.50 on one scale at a six-month interval to 0.82 on one of the scales for a two- to four-week time frame. Additionally, convergent and discriminant validity are reported, which substantiate the utility of the MBI-HSS in measuring the construct of burnout (Maslach et al., 1996).

Cronbach coefficient alphas were calculated for each subscale of the Inventory in the current study and yielded the following results at the pre-mission administration: EE (0.91), DP (0.61), and PA (0.88). Subsequently, Cronbach coefficient alphas were calculated for the second Inventory administration and again for the follow-up administration. The coefficients for these administrations are, respectively: EE (0.93 and 0.80), DP (0.62 and 0.69), and PA (0.66 and 0.55).

## Results

### *Pre-mission findings*

General perceptions of work-related stressors in the last year were assessed and reported in Table 1. Fifty-one per cent of the participants indicated they found it moderately to very

Table 1. Stressors in last year.

| Stressors in last year | Mean | *SD* |
|---|---|---|
| Lack of control over personal time | 3.55 | 1.00 |
| Pressure to see more patients in less time | 3.13 | 1.43 |
| Difficult to keep up with changing administrative technology | 3.03 | 1.42 |
| Too many call hours | 2.84 | 1.36 |
| Difficult to keep up with changing insurance policies and administrative regulations | 2.71 | 1.32 |
| Isolation from family or friends | 2.61 | 0.99 |
| Too much routine (lack of variability) in work | 2.48 | 1.17 |
| Hassles with colleagues or supervisors | 2.45 | 1.20 |
| Isolation from colleagues | 2.44 | 1.76 |
| Difficult to keep up with changing therapeutic technology | 2.39 | 1.02 |
| Diminished opportunity to see positive results in follow-up with patients | 2.30 | 1.08 |
| Difficult to keep up with changing diagnostic technology | 2.29 | 1.00 |
| Inability to make independent decisions due to insurance policies | 2.13 | 1.04 |

Note: $N = 33$.
Scale: 1 = not at all stressful; 5 = very stressful.



stressful that they lacked control over their personal time; 27% found the number of call hours moderately stressful; 41% found the pressure to see more patients in less time moderately to very stressful; 41% found it moderately to very stressful to keep up with changing administrative technology. Overall, "lack of control over personal time" was the most stressful of those areas assessed, while an "inability to make independent decisions due to insurance policies" was the least stressful.

Correlations were calculated to assess the relationship between the stressors rated on the stressor questionnaire developed by the authors and various practice characteristics. Most correlations were not significant. However, the number of hours worked per week was significantly correlated with "lack of control over personal time" ($r = 0.408$, $p = 0.018$) and with "too many call hours" ($r = 0.365$, $p = 0.043$).

The MBI-HSS was administered to assess the participants for factors related to distress and burnout in their work. Mean scores on the subscales of this Inventory were 21.22 (SD = 10.75) on EE, 7.29 (SD = 4.28) on DP, and 38.11 (SD = 6.74) on PA. While there is considerable variation on these scales, the means of these scores fall in the moderate range of burnout (Maslach et al., 1996). In general, prior to their international mission service these volunteers felt emotionally overextended by their work, felt some degree of impersonal response towards the recipients of their work, and lacked strong feelings of personal achievement in their occupation. No statistical differences existed in the burnout scores related to sex or professional identity (physician vs. nurse) of the volunteers.

Table 2 shows the correlations between the pre-mission scores on the burnout scales and stressors experienced in the last year and rated on the stressor questionnaire. EE was significantly correlated with several stressors, but particularly strong correlations were seen with "isolation from family or friends," "too much routine (lack of variability) in work," and "hassles with colleagues or supervisors." DP and PA were only correlated significantly with "hassles with colleagues or supervisors." The negative correlation between this item and PA pertains to the reverse scaling of this scale (high PA is related to low burnout).

Table 2. Correlations between pre-mission Burnout scale scores and stressors in last year.

| Stressors in last year | Emotional exhaustion | Depersonal-isation | Personal accomplishment |
|---|---|---|---|
| Hassles with colleagues or supervisors | 0.618** | 0.355* | −0.350* |
| Isolation from family or friends | 0.597** | 0.334 | −0.158 |
| Too much routine (lack of variability) in work | 0.562** | 0.171 | −0.106 |
| Lack of control over personal time | 0.425* | 0.301 | −0.240 |
| Isolation from colleagues | 0.416* | 0.186 | −0.105 |
| Too many call hours | 0.400* | 0.185 | −0.002 |
| Difficult to keep up with changing diagnostic technology | 0.277 | −0.045 | 0.000 |
| Diminished opportunity to see positive results in follow-up with patients | 0.207 | 0.252 | −0.186 |
| Difficult to keep up with changing therapeutic technology | 0.183 | −0.006 | 0.105 |
| Difficult to keep up with changing insurance policies and administrative regulations | 0.169 | 0.170 | 0.081 |
| Difficult to keep up with changing administrative technology | 0.169 | 0.132 | 0.023 |
| Inability to make independent decisions due to insurance policies | 0.076 | 0.165 | 0.299 |
| Pressure to see more patients in less time | 0.055 | 0.177 | −0.106 |

Note: $N = 33$.
*$p < 0.05$; **$p < 0.01$.



Table 3. Means and standard deviations on Burnout scales.

| Burnout scale | Pre-mission ($N = 36$) | Post-mission ($N = 25$) | Follow-up ($N = 19$) |
|---|---|---|---|
| Emotional exhaustion | 21.2 (10.7) | 17.7 (11.3) | 14.1** (6.2) |
| Depersonalisation | 7.3 (4.3) | 5.7 (4.1) | 5.2 (3.5) |
| Personal accomplishment | 38.1 (6.7) | 40.3 (4.5) | 41.7** (4.2) |

**$p < 0.01$.

### *Repeated measures analyses*

The focus of this research was on the impact of volunteer international medical mission service on burnout scores. One of the missions of CPR is to emphasise the benefits to medical personnel for providing service in an international context. To assess the effects of this service, the MBI-HSS was administered one month after return and again six months after return from the mission trip.

Although limited by sample size, the preliminary results look quite promising. Table 3 provides the burnout scale scores for each of the three test administrations, and Figure 1 shows the data in a graphic format. These data show that all scores moved in the appropriate direction – EE and DP scores decreased from the moderate-to-low range of burnout, and PA increased from the moderate-to-low range of burnout. Perhaps most interesting is that the scores continued to move in healthy directions even at a six-month follow-up.

One concern with our data was that only 19 of the 36 volunteers completed all three surveys. To determine if there were differences between survey completers and

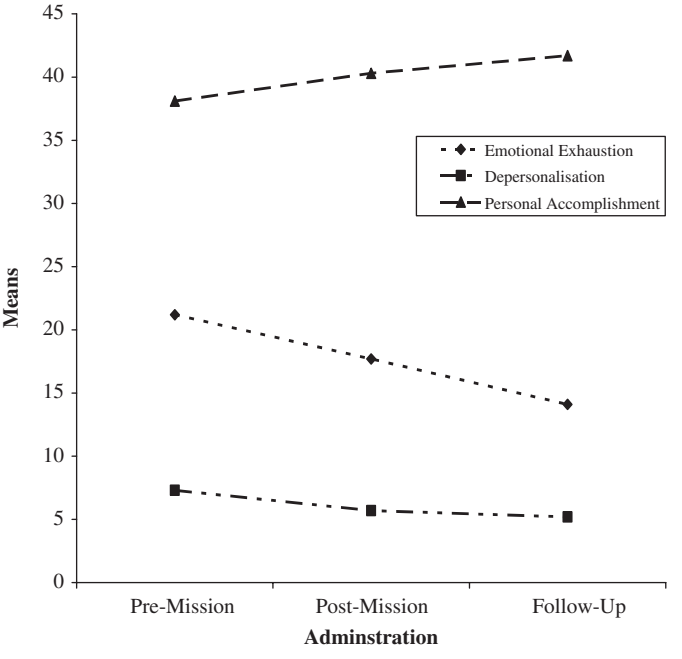


Figure 1. Mean scores on Burnout scales at three time periods.



non-completers *t*-tests comparing these two groups were conducted. Two-tailed *t*-tests revealed no significant differences between those who just completed the first survey (pre-mission) and those who completed all three administrations of the survey for all three scales.

Repeated measures ANOVAs indicated significant changes in burnout scores from pre-test to follow-up for those who completed all three administrations: EE [$F(2, 17) = 5.32$, $p = 0.01$, $\eta_p^2 = 0.239$] and PA [$F(2, 17) = 5.49$, $p = 0.009$, $\eta_p^2 = 0.244$], but not for DP [$F(2, 17) = 0.506$, $p = 0.61$]. Linear, polynomial contrasts for within subject follow-up analyses of EE revealed significant findings for pre-mission to follow-up [$F(1, 17) = 9.49$, $p = 0.007$], but not for other comparisons. Similarly, linear, polynomial contrasts for within subject follow-up analyses of PA revealed significant findings for pre-mission to follow-up [$F(1, 17) = 7.46$, $p = 0.014$], but not for other comparisons. These data suggest that providing this type of international volunteer service may alleviate some of the work distress (particularly EE and a lack of PA) felt among medical workers who participate in such mission trips.

## Discussion

The results of this research indicate that there are some personal emotional benefits to medical providers for short-term international missions. In addition to the positive changes in relationships and worldviews for college-age students participating in short-term mission experiences (Walling et al., 2006), there is a reduction in burnout for medical workers who experience moderate levels of burnout. Although there are positive changes in DP, the most benefit seems to be in the areas of EE and PA. Interestingly, the most significant change in these areas comes a few months after the mission service has ended.

Perhaps a change in personal appraisal, worldview, or work perspective continues to develop after return from the mission experience.

Perhaps it is the feeling of making a difference and being appreciated that leads to the revitalisation seen in these participants. As noted by the post-test and follow-up scores, there was a continuing positive change in EE and PA. These medical participants felt more invigorated for their work and remained aware of their contributions to others several months after the service brigades. These findings are consistent with Midlarsky's (1991) description of why helping others may benefit the helper. Midlarsky noted distraction from one's own troubles and enhancing a sense of meaningfulness among the reasons for the benefits to volunteers. It seems that when this is placed within a broader religious worldview perspective, one's helping can take on an even greater meaning. Thus, providing short-term medical mission service is not only a way to demonstrate one's faith, but it is also a possible mechanism that offers a renewed perspective on one's own situation and difficulties in life. For those who may be mildly to moderately burned out in their careers, this type of service may have particular personal benefits.



These findings are also consistent with Clary's conceptualisation of the motives for volunteering. Clary et al. (1998) and Clary and Snyder (1999) describe the motives for volunteering related to the following needs: career, esteem, social, protective, understanding, and values. It appears that the participants in this study experienced protective factors such as escaping from some negative feelings related to work stress. Similarly, their values may have been enhanced through demonstrating actions consistent with their beliefs, and esteem may have been enhanced by enriching pride in their knowledge and skills.

The major finding of this study is counter-intuitive: that medical personnel who are emotionally exhausted, have an impersonal response towards their patients, and lack a sense of PA (moderately burned out) benefit by working hard with numerous patients in an international context. The application of this finding is likely limited to those who are experiencing mild-to-moderate job-related burnout, rather than severe burnout. It is also likely limited to those who do not have significant psychopathology, since psychological problems have been related to failure in short-term missions (Barnett et al., 2005).

Although the primary finding of this research is that there is a reduction in burnout for medical workers who participate in short-term missions, there may be some indication that dissatisfaction with one's current medical or nursing work experience as well as stress and isolation may be motivating factors in seeking such mission work. In addition to positive motivations such as altruism and a desire to help others, we speculate that negative motivations related to disillusionment with one's current work may be part of the desire to serve others in an international context. Perhaps those who volunteer for international medical mission service do so at least in part because of frustration or dissatisfaction with their current situation and a desire to see more immediate effects of their work. Additionally, the appreciation for medical care is readily expressed by most of the patients seen in these high-need environments.

Our findings indicate that EE and PA changed significantly from pre-mission to follow-up for these participants. While DP moved in a healthy direction, it was not significant. It may be that this lack of statistical significance is related to the relatively low internal reliability of this scale of the MBI-HSS revealed in our analyses of our participants' scores.

Limitations of this study include small sample size and lack of a control group. Although the effect sizes were large, more participants would provide further confidence for the veracity of the findings and could more readily support generalisation of the findings to other short-term medical mission service. Related to sample size is the fact that only some of the mission workers participated in this study. Perhaps those who chose not to participate felt so good that they saw no need to respond. It is also possible that those who serve with the Center for Personal Restoration are a self-selected group comprised of those who feel burned out and desire a mission trip in hopes of addressing their exhaustion. Other groups that do this kind of work may not attract these individuals.

A control group would allow researchers to more accurately explain the cause of the changes in burnout scores. Perhaps a couple of weeks on a tropical island would have the same effect of changing burnout related issues. Since there was a sight-seeing aspect to the mission trips for these participants (approximately 20% of the time), it may be that this aspect alone accounted for the positive results found in this study. It is also unclear what occupational or personal changes occurred after the mission trips for these doctors and nurses. It is possible that some of them came home and decided to change their work habits rather radically and that these changes more adequately account for their continued improvement.

Nevertheless, this is the first time we have seen a study of this nature. This empirical evidence seems to indicate that these medical personnel had some disillusionment with their work and experienced a moderate level of burnout prior to engaging in the mission trip. These factors may be part of their motivation for seeking this kind of experience. Following the mission trip, participants reported that emotional exhaustion decreased and personal accomplishment increased. The counter-intuitive finding that providing unpaid voluntary service to others may actually mitigate the effects of burnout also bears further study. At present it is not clear what factors account for the apparent benefit: providing unpaid service, providing service that is in some way more personally satisfying, or some other factor. Further investigation of the positive and negative effects of short-term medical missions is warranted.



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