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BURNOUT IN GHANAIAN HOSPITALS: PHASE MODEL FINDINGS IN SUB-SAHARAN AFRICA

EMMANUEL FIADZO
ROBERT T. GOLEMBIEWSKI
HUAPING LUO
MARK BRADBURY
TAMMY LYNN RIVERA

ABSTRACT

This replication shows the expected covariation of the phases of burnout with a set of *5* marker variables. As the phases progress I ---> VIII, so do decreases or deficits occur on all the marker variables. All covariants far surpass usually-accepted levels of statis-tical significance, although the magnitudes are not as great as in much other research with the phases. The Ghanaian incidence of the phases is also compared with several panels of populations. Those comparisons at once indicate a substantial Ghanaian incidence of advanced phases, as well as a distribution comparable to North American worksettings and more favorable than a panel of global worksettings.

INTRODUCTION

The phase model has been shown to have consistent and robust patterns of covariation in virtually all worksettings, worldwide (Golembiewski, Boudreau, Luo, and Munzenrider, 1996), and this record at once supports and also requires an aggressive program of replications to test the generalizability of the findings.[1] Reinforcing evidence has come from mainland China (Golembiewski and Luo, 1996), Saudi Arabia (Al-Ebedah, 1995), Taiwan (Golembiewski, Sun, Lin, and Boudreau, 1995), and Belarus (Golembiewski, Bou- dreau, and Levine, 1996), among other worksettings. This replication in three Ghanaian hospitals also supports the phase model of burnout, in general pattern but with certain noteworthy qualifications in details.

Five emphases provide support for this overall conclusion. In turn, attention gets directed at: the population; the phase model of burnout as independent variable; several independent "marker variables"; analytic methods; and the findings. A brief discussion concludes this article.

POPULATION

The present convenience population, N = '287, encompasses volunteers from three hospitals near the capital city of Accra--Korie Bu Teaching Hospital, Ridge Hospital, and Terna Hospital. Korie Bu is by far the largest unit, with a total employment of 2,892, including over 300 doctors and just over 1300 nurses. "Total strength" in the two latter facilities approximated 400 each, including both doc- tors and nurses.

The responding population is not representative in any direct sense. Volunteers were solicited from work units assembled by willing supervisors, and forms were distributed in group settings. Respondents were skittish about reporting demographics, with about 20 percent declining (for example) to indicate their gender. Nearly 78 percent of those providing information about gender were females. See also Note 2.

Respondents include all classes of employees, including nurses and doctors; but volunteers were asked only to identify gender.

PHASE MODEL OF BURNOUT

Most operational measures of burnout focus on the number and intensity of stressors, but the phase model relates to how individuals experience whatever stressors they encounter. Why? Directly, individuals differ widely--not only between persons, but also at different points in an individual's life--as to the levels and kinds of stressors acceptable to them

The phase model rests on the items from the Maslach Burnout Inventory, or MBI (Maslach and Jackson, 1982, 1986), whose three factor structure seems appropriate both in U.S. settings *(e.g.*, Golembiewski and Munzenrider, 1988:18-23) as well as in cross-national comparisons *(e.g.,* Schaufeli and Van Dierendonck, 1991; Golembiewski, Scherb, and Boudreau, 1993). Measurement details are available elsewhere *(e.g.,* Golembiewski and Munzenrider, 1988:15-31.). The original MBI was designed for people-helping settings and human services, while the present modifications shift the focus of items from "clients" to "fellow-workers" without distorting the original intent (Golembiewski and Munzenrider, 1988: esp. 18-22).

The MBI items tap three subdomains of burnout. They are:

1. Depersonalization, with high scores indicating a person with marked tendencies to think of others as things or objects as well as to distance self from others.
2. Personal Accomplishment (reversed), with low scores associated with persons who report doing well on jobs they consider attractive.
3. Emotional Exhaustion, with high scores identifying persons who are at or beyond their comfortable coping limits, who are--in the English vernacular--near or at the "end of the rope."

Sub-Domains as Trans-Cultural

The phase model builds on these three sub-domain scores, with each individual getting a High/Low assignment on each sub-domain based on norms derived from a large population of employees of a U.S. federal agency under considerable stress (Golembiewski and Munzenrider, 1988:27-28). These "universal norms" are:

- for Depersonalization, 19 or > is considered high
- for Personal Accomplishment (Reversed), 26 or < is considered low
- for Emotional Exhaustion, 24 or > is considered High

Some users of the phase model prefer "local norms"--typically the medians in specific populations for the three MBI sub-domains *(eg.,* Burke and Deszca, 1986). In effect, local norms are more consistent with a culture-bounded view of burnout.

Reliance on local norms may prove to be the correct convention, but the distinction does not apply to the Ghanaian population. The local medians there for the 3 MBI sub-domains are exactly the same as the three universal norms.

FIGURE 1

EIGHT-PHASE MODEL FOR THE PHASES OF BURNOUT

	Phases of Burnout							
	I	II	III	IV	V	VI	VII	VIII
Depersonalization	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi
Personal Accomp-lishment (Reversed)	Lo	Lo	Hi	Hi	Lo	Lo	Hi	Hi
Emotional Exhaustion	Lo	Lo	Lo	Lo	Hi	Hi	Hi	Hi

Phases of Burnout as Trans-Cultural

Conceptually, based on the clinical literature (Golembiewski and Munzenrider, 1988:24-29), the three sub-domains are seen as progressively virulent. In this view, High emotional exhaustion contributes more to burnout than does Low personal accomplishment. Moreover, both are seen as more virulent than High depersonalization.

As Figure 1shows, these simple operations generate an 8-phase

model of progressively-virulent burnout. Phase I represents the lowest burnout, and Phase VIII the greatest.

Note one vital point. The phase model does not propose that an individual will go through each of the phases to maximum burnout. Rather, the model admits two kinds of flightpaths to advanced burnout, building on a common medical distinction: Chronic burnout seems to be by far the more common mode of onset, and is associated with unattractive working and supervisory conditions, and involves the progressive I --- > II --- > IV --- > VIII. In contrast, acute onset seems to occur infrequently--in perhaps 10-15 percent of all phase assignments, or less. Thus a person classified in Phase I, on learning of a marital partner's unexpected death, might quickly be classified as a V. Later--given a difficult grieving process--the survivor might escalate to either a VI or VII, depending on whether relationships or work suffered. Still later, an VIII assignment might be appropriate, which would indicate that emotional exhaustion persisted and that both relationships and work remained depressed.

Most relevant for present purposes, as later discussion will emphasize, Phases IV and V are in effect the major gates to advanced burnout. While classifications in advanced burnout remain stable over time in 50-75 percent of the cases, depending upon one's criteria, Phases IV and V change in perhaps 80 percent of the cases even over intervals of 2 months or so (Golembiewski, Boudreau, Munzenrider, and Luo, 1996: 176-177).

DEPENDENT OR MARKER VARIABLES

Existing research supports strong expectations about covariants of the phases, as well as about operational measures of these covariants. In the Ghanaian hospitals, five[2] marker variables constitute the dependent variables in this replicatory test of concurrent validity of the phases.

Job Involvement

This domain has proved a regular and robust covariant of the phases, both in the original work as well as in numerous replications *(e.g.,* Golembiewski and Munzenrider, 1988:209-219). White and Ruh's (1973) 9-item measure is relied upon, with the expectation that Job Involvement will decrease as the phases progress I ---> VIII. The rationale is transparent. Higher JI scores indicate higher levels of job involvement.

Helplessness

This characteristic of persons has received great attention recently in the behavioral literature *(e.g.,* Garber and Seligman, 1980), and it seems a highly probable covariant of burnout from both theoretical and practical points of view. Directly, helplessness should in- crease as the phases progress I ---> VIII, and heightened helpless- ness also seems likely to induce advanced phases of burnout.

The proposed covariation has been observed consistently *(e.g.,* Golembiewski, Boudreau, Goto, and Murai, 1993), using Ashforth's (1989) 6-item measure of helplessness. Higher scores indicate greater helplessness.

Work Satisfaction

As studies in several countries show, this domain typically is a direct covariant of the phases: as burnout advances, satisfaction declines for numerous operational measures of its various facets *(e.g.,* Golembiewski and Munzenrider, 1988:36-37, 40-41). It could hardly be otherwise, if burnout is a useful dimension, and if the phase model is a valid as well as reliable operational definition. To explain, burnout always is associated with unsatisfactory job experience *(e.g.,* Freudenberger, 1980; Maslach and Jackson, 1982; Cherniss, 1980).

The present operational definition uses 6 items adapted from Cross (1973). A 5-point Likert scale is employed, with higher scores indicating greater satisfaction.

General Health Questionnaire

Virtually all research associates increased burnout with heightened physical and emotional symptoms *(e.g.,* Golembiewski and Munzenrider, 1993), and the reasons are not obscure. Poor health seems likely to contribute to burnout which, in turn, often will deplete energy and perhaps degrade a body's immunological defenses.

Here, the General Health Questionnaire (GHQ) provides the estimate of health--this time concerning symptoms of nonpsychotic psychiatric illness (Goldberg, 1972:2). The GHQ uses the following format (Goldberg, 1972: 143):

HAVE YOU RECENTLY

7. _____been able to concentrate on whatever you're doing?

(1) better than usual
(2) same as usual
(3) less than usual
(4) much less than usual

This research uses the 30-item version of the GHQ developed for U.S. contexts (Goldberg, 1972:36-37, 55-57, and 146) and, following Goldberg, employs two scoring variants:

- GHQ I, a total score that assigns each item a (0, 1, 2, or 3) score for the four response stems listed above.
- GHQ II, which assigns a (0) for each item a respondent scores 1or 2 and a (1) score for each items scored (3) or (4) on the response stems above. The sum is used to distinguish "cases" from "normals": scores greater than or equal to 4 identify individuals who present symptoms that, on the basis of individual diagnosis during clinical interviews, would be classified as "psychiatric cases" rather than "normals" (Goldberg, 1972:56). Goldberg estimates less than 20 percent are misclassified.

Job Tension

Estimates of the degree of tension at work also have been directly and consistently related to advancing burnout *(e.g.,* Burke and

Deszca, 1986; Golembiewski and Munzenrider, 1988), and the reasoning is direct. Greater job tension reduces attraction to work, will contribute to an employee's emotional exhaustion, and--at least beyond some low-to-moderate level that may stimulate effort--probably contributes to the difficulty of task performance via greater conflict or frustration.

This replication uses the Job-Related Tension Index (Kahn, Wolfe, Quinn, Snoeck, and Rosenthal, 1964), a 15-item measure. High scores identify individuals reporting greater tension at work.

ANALYTIC METHODS

Basically, ANOVA is relied on to test for covariations between the burnout phases and the five marker variables. Where ANOVA indicates non-random variance in any of the distributions of scores, the specific locus of statistically-significant differences is assessed by comparing all 28 possible pairs of means arrayed via the phases. The Least Significant Difference (LSD) test, as modified for unequal sub-sample sizes, assesses the statistical significance of the paired-comparisons.

OBSERVED RELATIONSHIPS

Data from the three Ghanaian hospitals support the phase model, and five findings deserve special attention. First, if with qualifications, the several measures seem adequate for research purposes. See Table 1. Thus, alpha coefficients for the marker variables aver- age .7415, with Helplessness being a low outlier. The three MBI sub- domains have alphas lower than those reported in most research on the phase model, but only Personal Accomplishment (alpha = .5466) raises major concern. In addition, see Note 2, which relates to a probably-related local sensitivity to estimating personal productivity.

Second, as Table 2 shows, the distribution of phases contains some good news, and some bad. As for the former, nearly 35 percent of the respondents fall in the three least-advanced phases. But nearly 40 percent are classified in the three most-advanced phases.

This distribution of phases shows there is something to build on, but also that much requires doing in the Ghanaian hospitals.

Third, Table 3 permits useful perspective on the scale of the Ghanaian challenge, as contrasted with populations from several geographic collections. Thus, as rows A-C vs. E indicate, Ghana's distribution of phases approximates those in a substantial number of North American organizations with a range of missions-and-roles. Looked at in another way, rows D vs. E show the Ghanaian

distribution is substantially more attractive than that in a collection of global worksettings.

TABLE 1

ALPHA COEFFICIENTS FOR BASIC MEASURES

	alpha
1. MBI Sub-Domains	
Depersonalization	.6487
Personal Accomplishment	.5466
Emotional Exhaustion	.6600
2. Marker Variables	
Job Involvement	.7290
Helplessness	.5458
Job Satisfaction	.6813
General Health Questionnaire I	.8925
Job Tension	.8591

TABLE 2

PHASES OF BURNOUT IN THREE GHANAIAN HOSPITALS

	Phases of Burnout								
	I	II	III	IV	V	VI	VII	VIII	
N =	38	21	37	36	44	46	17	48	= 287
	13.2	7.3	12.9	12.5	15.3	16.0	5.9	16.7	= 100.0
		33.6%					38.6%		

TABLE 3

INCIDENCES OF PHASES IN FIVE AGGREGATES, IN PERCENT

		Phases of Burnout			
		I	II	III	IV
A.	63 North American Worksites, Public and Business, N = 24,080	25.0	6.0	12.8	8.4
			43.8%		
B.	12 U.S. Public-Sector Worksites, N = 6,426	24.0	6.5	9.1	5.1
			39.6%		

TABLE 3 (Continued)

		Phases of Burnout			
		I	II	III	IV
C.	Canadian Public-Sector Worksites, N = 3,240	22.1	6.3	15.4	6.9
			43.8%		
D.	17 Global Worksites, N = 5,967	8.9	4.8	12.3	14.3
			26.0%		
E.	Ghanaian Hospitals, N = 287	13.4	7.3	12.9	12.5
			33.6%		

TABLE 3 (Continued)

	Phases of Burnout			
	V	VI	VII	VIII
A.	6.8	12.8	7.9	20.2
		40.9%		
B.	11.3	14.7	7.4	22.0
		44.1%		

TABLE 3 (Concluded)

	Phases of Burnout				
	V	VI	VII	VIII	VI–VIII
C.	7.7	9.8	7.2	24.8	41.8%
D.	4.6	10.0	4.8	39.5	55.1%
E.	15.3	16.0	5.9	16.7	38.6%

Fourth, as with virtually all variables tested so far, the distribution of phases in Ghana has consequential implications for both practice and public policy. In a few words, all five marker variables worsen as the phases progress I ---> VIII. Not only does each marker variable contain nonrandom variance when arrayed by the 8 phases, but that covariation is quite regular. On average, nearly 3 of every 4 paired-comparisons in Table 4 fall in the expected direction: *e.g.*, those in Phase I have higher job involvement than those in II, II assignees are higher than IIIs, etc. In addition, over 14 percent of these paired-comparisons achieve

statistical significance as well as fall in the expected direction, while 5 percent is expected due to chance factors alone. In contrast, only a few cases--2.2 percent on average--fall in a direction contrary to expectations and attain P .05.

Note also that eta-square in Table 4 indicates that substantial variation is explained by each of the marker variables.

Fifth, the consequentiality of advanced phases for practice and public policy is suggested in Table 5. Overall, the more advanced the phase assignment, the greater the proportion of "cases" who would be targeted for therapeutic intervention had they revealed by interview their nonpsychotic psychiatric symptoms. Specifically, 75 percent of the paired-comparisons of GHQ II X phases fall in the expected direction. Moreover, only a bit more than 27 percent of those in Phase I are considered "cases," while over 72 percent in Phase VIII are categorized in that way. Chi-square results indicate the extreme unlikelihood that random factors only account for this distribution.

The implication is obvious. One major cost of advanced burnout seems to be a substantial increase in nonpsychotic psychiatric symptoms which, in general, should trouble individuals as well as depress performance over the long run.

TABLE 4

MEANS OF MARKER VARIABLES BY PHASES, GHANAIAN HOSPITALS, ANOVA SUMMARY

	F-Ratio	Probability =	In Expected Direction
A. Job Involvement	8.0897	<.0000	71.4
B. Helplessness	5.6363	<.0000	75.0
C. Satisfaction	6.5455	<.0000	82.4
D. General Health Questionnaire I	3.7704	<.001	71.4
E. Job Tension	2.9022	<.001	67.9
			73.6%

TABLE 4 (Concluded)

In Expected Direction and Statistically Significant	In Contrary Direction	In Contrary Direction and Statistically Significant	eta^2
21.4	28.6	7.1	0.172
14.3	25.0	3.6	0.126
21.4	17.6	0.0	0.147
7.1	28.6	0.0	0.091
7.1	22.1	0.0	0.072
14.3	26.4	2.2	$\bar{X}$ = 0.122

TABLE 5

GHQ II OR "CASES" BY PHASES IN PERCENT

	Phases of Burnout							
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
"Cases," in %	27.3	35.0	37.8	45.7	35.7	56.1	31.3	72.3

Chi^2, 7 df, = 32.97
Probability < = .0003
Cramer's V = 0.343

In sum, this replication in Ghanaian hospitals supports the phase model, with some qualifications. Four points highlight major contributors to this conclusion.

Most prominently, first, the Ghanaian pattern is like that almost always associated with the phase model, but it has a lesser magnitude. For example, consider one test of Total Physical Symptoms, arrayed by the phases (Golembiewski and Munzenrider, 1988:68-83). It generated the same pattern of paired-comparisons as did the related marker variable in the three Ghanaian hospitals, but the magnitudes clearly differ. Consider GHQ I, Table 4, with these summary results:

In Expected Direction	In Expected Direction and Statistically Significant	In Contrary Direction	In Contrary Direction and Statistically Significant
96.4%	60.4%	3.6%	0.0%

No one can be certain what accounts for such differences within-a-pattern. All-but-universally, for example, such differences are found when females dominate in the responding population. In the present case, only a bit over 22 percent of the respondents are male. The reasons for gender differences are not yet clear, but initial research is promising *(eg.*, Golembiewski, Luo, and Aldinger, 1996). Alternatively, broadly cultural differences may be at work, with the results summarized above coming from employees of a U.S. federal agency with people-helping and medical missions. This possibility seems discounted, however, by the fact that the Ghanaian medians on the MBI sub-domains are exactly the same as those for the U.S. federal agency. In addition, local organizational features may account for some of the differences. Or all three possibilities, and more, besides, may be applicable simultaneously.

Whatever the contributors to differences, the common pattern remains in the present comparison as well as in virtually all others (Golembiewski, Boudreau, Munzenrider, and Luo, 1996).

Second, the distribution of phases in the Ghanaian hospitals encourages dual reactions. Thus, given the somber covariants of advanced phases, Table 3E suggests major challenges. At the same time, however, the Ghanaian distribution of phases fares well in

comparison with North American worksettings (Tables 3A, 3B, and 3C); and the Ghanaian distribution seems far preferable to the global results summarized in Table 30.

Tentativeness dominates in interpreting this relatively favorable Ghanaian position, but several features suggest the range of factors that may be operating. **Inter alia:**

- Strong ties of family and tribe may well buffer the demands of work.
- Economies of size, scale, and sophistication may still exist in the Ghanaian hospitals.
- The metro environment of the Ghanaian hospitals seems to have major attractions which are far from counterbalanced by negative features of urbanization--e.g., personal security seems high, the urban life style offers major amenities and opportunities, etc.
- There seems no major ongoing effort to "rationalize" or "engineer" health-care in ways that may stress hospital employees--as by cut-backs, downsizing, or sharp increases in work demands.

Third, however, the Ghanaian results imply the possibility of a sudden and sharp drift toward the advanced phases of burnout. This concern has several motivators. Most directly, and perhaps primarily, the Ghanaian response rates are quite low--less than 10 percent of the 1994 "total strength." Compounding this troublesome elemental, the general suspicion is that the respondents will be "better scorers" than the non-respondents. In sum, the present distribution of Ghanaian phases may be optimistic and not generalizable to the total employment of the three hospitals.

In addition, the several likely contributors to burnout in the Ghanaian hospitals may well change. Urban problems may grow, resources may get tight, hospitals may grow in size and thus increase stress by complicating communications, and so on.

Other motivators of concern about the Ghanaian distribution of phases requires more stage-setting but are also supported by some data. For example, the high proportions of Ghanaian respondents in Phases IV and V deserves attention: commonly, as Table 3 reflects, those two phases contain 15-20 percent of all respondents in aggregates A-D, while the Ghanaian respondents E in those categories are 50-75 percent more numerous.

The concern is that IV and V assignees might soon move toward VIII. Why? Most assignees to the most- and least-advanced stages

tend to remain there over extended periods, while those in the two intermediate phases change in perhaps 4 of every 5 cases, on average, even in time periods as short as a month or two, and certainly over the period of a year (Golembiewski, Boudreau, Munzenrider, and Luo, 1996).

Beyond this transitory character of assignments to Phases IV and V, those two are "closer" to VIII than the labels suggest. As noted earlier, the chronic progression through the phases--which characterizes perhaps 75 percent or more of all cases of onset of burnout--involves the single flightpath I ---> II ---> IV ---> VIII. Onset also may be acute, and here several flightpaths may exist, all featuring Phase V. Thus a sudden death of a beloved one might well trigger I ---> V movement, suddenly. Depending upon one's coping with grief, numerous possibilities exist. For example:

- One gets better, after an interval: I ---> V ---> I
- One can "throw self into work": I ---> V ---> VI (and possibly ---> VIII
- One can "lose self in one's friends and neglect work": I ---> V ---> VII (and possibly) ---> VIII

Phases IV and V clearly are central in both chronic and acute onset, then. Hence, the concern that the high proportion of Ghanaian respondents in those two phases suggests social systems vulnerable to a shift toward Phase VIII.

Fourth, although the low response rate urges caution about breaking-out data from the three hospitals, evidence suggests--intriguingly, if tentatively--that burnout may be especially advanced in Korie Bu. This is credible. To be selective, Korie Bu is far larger than the two other hospitals combined, with probably-greater issues related to communication and coordination; and as a teaching hospital, it presumably would deal with the most chronic and acute patients.

Any comparisons must be strictly tentative, but Table 6 presents a burnout picture consistent with the tentative characterization above. Thus Korie Bu not only has the lowest proportion of assignees to the three least-advanced phases of burnout (21.3 vs. 35.5 and 50.6 percent), but that a teaching hospital also has a larger proportion of advanced phases than does the full collection of respondents (44.1 to 38.6 percent). Moreover, Korie Bu has an additional 34.6 percent of its respondents assigned to Phases IV and V. For reasons sketched above, that fact bears close watching at the teaching hospital.

TABLE 6
PHASES OF BURNOUT BY HOSPITALS

	Phases of Burnout, N %			
	I	**II**	**III**	**IV**
A. Korle Bu Teaching Hospital N = 137	13 9.6	4 2.9	12 8.8	14 10.3
		21.3%		
B. Hospital II N = 62	9 14.5	4 6.5	9 14.5	7 11.3
		35.5%		
C. Hospital III N = 89	16 18.0	13 14.6	16 18.0	15 16.9
		50.6%		

TABLE 6 (Concluded)

Phases of Burnout			
V	VI	VII	VIII
33	25	11	24
24.3	18.4	8.1	17.6
	44.1%		
4	12	2	15
6.5	19.4	3.2	24.2
	46.8%		
7	9	4	9
7.9	10.1	4.5	10.1
	24.7%		

NOTES

1. A version of this article was prepared as a Report for Ghanaian health-care officials, October 1995.
2. Ghanaian respondents also were asked to rate their productivity on a 0 to 100 percent scale, but so many declined that this marker variable is excluded from further analysis. In fact, only 27 percent of all respondents completed this item, often with apologies for their decision. This discourages an analysis of productivity by phases. To explain, the phase model requires a substantial N, not only because it has 8 categories but perhaps especially because the distribution of phases (as in Ghanaian hospitals) typically is bimodal.

REFERENCES

Al Ebedah, N. (1995). •A Survey of Staff Burnout and Quality of Worklife." Unpublished Master's Thesis, Pennsylvania State University at Harrisburg.

Ashforth, B. (1989). "The Experience of Powerlessness in Organizations." ORGAN-IZATIONAL BEHAVIOR AND HUMAN DEOSION PROCESSES 43:207-242.

Burke, R. and G. Deszca (1986). "Correlates of Psychological Burnout Phases Among Police Officers." HUMAN REIATIONS 39:487-501.

Cherniss, C. (1980). PROFESSIONAL BURN-OUT IN HUMAN SERVICES. Beverly Hills, CA: Sage.

Cross, D. (1973). "The Worker Opinion Survey: A Measure of Shopfloor Satisfaction." OCCUPATIONAL PSYCHOLOGY 47:193-208.

Freudenberger, H.J. (1980). BURNOUT: THE HIGH COST OF HIGH ACHIEVEMENT. Garden City, NY: Anchor Press.

Garber, J. and M.E.P. Seligman (eds.) (1980). HUMAN HELPLESSNESS: THEORY AND APPLICATION. New York: Academic Press.

Goldberg, D.P. (1972). THE DETECTION OF PSYCHIATRIC ILLNESS BY QUESTIONNAIRE. London: Oxford University Press.

Golembiewski, R.T., R. Boudreau, K. Goto, and T. Murai (1993). "Transitional Perspectives on Job Burnout: Replications of Phase Model Results Among Japanese Respondents." INTERNATIONAL JOURNAL OF ORGANIZATIONAL ANALYSIS 1:7-27.

Golembiewski, R.T., R.A. Boudreau, and J. Levine (1996). "Burnout in Belarus." JOURNAL OF HEALTH AND HUMAN SERVICES ADMINISTRATION 18(4) (Spring):407-420.

Golembiewski, R.T., R.A. Boudrea u, R.F. Munzenrider, and H. Luo (1996). GLOBAL BURNOUf. Greenwich, CN: JAI press.

Golembiewski, RT. and H. Luo (1996). "Burnout in Chinese Municipal Government.• JOURNAL OF HFALTH AND HUMAN SERVICES ADMINISTRA- TION 18(4) (Spring):421-430.

Golembiewski, RT., H. Luo, and RT. Aldinger (1996). "More on Gender Effects in Burnout: Age as a Breakout Variable." JOURNAL OF HFALTH AND HUMAN SERVICES ADMINISTRATION 18(4): (Spring):451-465.

Golembiewski, RT. and RF. Munzenrider (1993). "Health-Related Covariants of Phases of Burnout: A Replication.• ORGANIZATIONAL DEVELOPMENT JOURNAL 11:1-10.

_____ (1984a). "Phases of Psychological Burnout and Organizational Covariants." JOURNAL OF HEALTH AND HUMAN RESOURCES ADMINISTRATION 6 (Fa11):290-323.

_____(1988). PHASES OF BURNOUf. New York: Praeger.

Golembiewski, R.T., K. Scherb, and R.A. Boudreau (1993). "Burnout in Cross-National Settings," in W.B. Schaufeli, C. Maslach, and T. Marek (eds.). PROFES-SIONAL BURNOUf. Washington, D.C.: Taylor and Francis.

Golembiewski, RT., B-C Sun, C-H Lin, and RA. Boudreau (1995). "Burnout and

Covariants Among Taiwanese Police," in S.B. Prasad (ed.). ADVANCES IN INTERNATIONAL COMPARATIVE MANAGEMENT. Greenwich, CT: JAi Press.

Kahn, R., D.M. Wolfe, R.P. Quinn, J.D. Snoeck, and R.A. Rosenthal (1964). ORGANIZATIONAL *STRESS*. New York: Wiley.

Maslach, C. and S.E. Jackson (1982, 1984). MASlACH BURNOUf INVENTORY. Palo Alto, CA: Consulting Psychologists Press.

Schaufeli, W.B., C. Maslach, and T. Marek (eds.) (1993). PROFESSIONAL BURNOUf. Washington, D.C.: Taylor and Francis.

Schaufeli, W.B. and D. van Dierendock (1991). "The Construct Validity of Two Burnout Measures." Unpublished manuscript, University of Nyimegen, The Netherlands.

White, J.K. and RA. Ruh (1973). "Effects of Personal Values on the Relationships Between Participation and Job Attitudes." ADMINISTRATIVE SCIENCE QUARTERLY 18:506-514.