

Table 1. Major Power Studies

Author & Year	Design	Sample	Population	Concepts/ Treatments	Reliability*	Major Findings
Evans 1990	Quantitative Descriptive Correlational (RCF)	254	RNs in health departments 20's to 60's y/o	Power Empathy Job satisfaction	.81, .84, .87, .90 Tot = .95	SS ($p < .01$) effect of power on the variances on nurse empathy & job satisfaction; SS correlations among empathy & power ($r = .27$, $p < .001$), power & job satisfaction ($r = .15$, $p < .01$), job satisfaction & influence of nursing administration on satisfaction ($r = .44$, $P < .001$).
Preston 1997	Quantitative Descriptive Correlational (BPT)	NA	School board members	Power	NA	School advisory council presidents had the highest power, followed by principals, trustees and superintendents; female trustees had more awareness of education change; older trustees had more freedom.
Talley 1998	Quantitative Descriptive Correlational (RCF)	319	RNs in rural hospitals 22 to 65 y/o	Power Decision making Organizational commitment LOS cost efficiency Quality of care	Tot = .97	SS ($p = .01$) correlation of power to decision-making ($r = .29$) & to organizational commitment ($r = .40$); For nurse managers power ($p < .05$) & organizational commitment ($p < .01$) contributed 46% of variance to quality.
Garrett 1999	Quantitative Descriptive Correlational	349	Female baccalaureate nursing students	Power Perception of inviting teaching behaviors Self-esteem	A= .83/.79, C= .86/.89, F= .90/.91, I= .92/.91. Pre/posttest Tot = .96	SS percent of variance in power & self-esteem was accounted for by the professionally inviting teaching behaviors; positive correlation between power & self-esteem ($r = .57$, $p < .001$).

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Hills 1999	Quantitative Descriptive Correlational (RCF)	323	Mothers of 6-month-old infants	Awareness Wakedfulness Human field motion Well-being	NA	SS correlation between duration of breast-feeding & well-being, and awareness; SS relationship between awareness & human field motion, higher spiritual involvement, longer hours of sleeping for mothers who breast-fed for 6 months compared to those who formula fed.
Mahoney 1999	Quantitative Descriptive Correlational (RCF)	118	Female home health care nurses 30 to 49 y/o	Power Actualization Job satisfaction	.81, .87, .90, .93 Tot = .96	SS positive relation between power & job satisfaction; power accounted for 13% of job satisfaction.
Echols-Hurst 2000	Quantitative Descriptive Correlational (RCF)	114	Men & women with psychiatric & substance abuse 22 to 68 y/o	Empowerment Patient satisfaction	Tot = .98	SS relation between overall satisfaction with previous health care experience & empowerment, and between empowerment & satisfaction with current health care encounter.
Smith 2000	Quantitative Pre-experimental (RCF)	63	Nursing students	Power Spirituality/ Therapeutic Touch	Tot = .94	SS increase of power ($p < .01$) & spirituality ($p < .001$) after TT completion; SS ($p < .01$) correlation of power to spirituality pre- ($r = .42$) & posttest ($r = .47$).
Wall 2000	Quantitative Experimental (RCF)	97	Men & women with surgical resection of lung cancer 37 to 83 y/o	Power Hope/ Exercise	Tot = .93 - .97	SS increase in power in the exercise group from T1 to T3 ($p < .001$) as well as between group differences ($p < .05$); NS differences in hope between groups; positive relation between power & hope ($r = .70, p < .001$).
Kim 2001	Quantitative Experimental (RCF)	19	Men & women with chronic primary headache	Power Pain/ Magnetic field therapy	.91, .92, .93, .92 Tot = .96	NS change in power over time; SS decrease in headache in all three groups; NS differences in power or pain between the groups.

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Mahoney 2001	Quantitative Descriptive Correlational (RCF)	134	University personnel & faculty	Power	.86, .58, .91, .92 Tot = .93	NS differences between the total power scores among administrators, faculty & staff employees.
Smith 2001	Quantitative Pre-experimental (RCF)	23	19 Healees & 4 TT practitioners	Power Spirituality Diversity Pain Stress Pulse, B/P/TT	NA	NS increase in power or diversity after a series of TT treatments; SS increase in spirituality; SS ($p < .05$) decrease in pain, stress, pulse & systolic BP after a series of TT treatments.
Dzurec, Hoover & Fields 2002	Quantitative Descriptive Comparative	40	Generally healthy women 18 to 49 y/o	Power Fatigue Depression Body aches	From .88 (F) to .93 (C)	SS differences ($p < .001$) in power, fatigue, depression & body aches ($p = .03$) between fatigued and non-fatigued groups; for symptomatic group: SS correlation between power and depression ($r = -.53$, $p = .01$), between depression and fatigue ($r = .82$, $p < .001$).
Hammond 2002	Triangulation (Descriptive Correlational & Interview)	70 & 15	Women with alcohol-related problems	Power Spirituality Alcohol dependency	NA	SS ($p = .01$) correlation between power & spirituality ($r = .51$); SS ($p = .05$) relation between power and severity of alcohol dependence ($r = -.24$); 3 themes emerged in relation to finding inner strength to stay alcohol free.
Salerno 2002	Quantitative Descriptive Correlational (RCF)	107	Men & women recovering from schizophrenia a 19 to 63 y/o	Power Hope Perception of self	.89, .90, .89, .89 Tot = .97	Level of hope comparable to that of healthy adults, but lower levels of power & perception of self; SS ($p < .001$) positive relations between power & perception of self ($r = .58$) and hope & perception of self ($r = .73$).

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Smith Arnstein & Wells-Federman 2002	Quantitative Experimental (RCF)	12	Men & women with chronic pain 31 to 56 y/o	Power Pain Self-efficacy Disability Perceived distress/TT	.90, .87, .86, .93 tot = .97	SS enhancement in power & self-efficacy regardless of group assignment (p < .01); NS differences between the groups.
McGarvey 2003	Quantitative Descriptive Correlational	756	Occupational health nurses	Power Organizational ethical climate	NA	Both corporate ethics & power were predictors of the OHN contracted by the company choosing the best practice response; corporate ethics alone predicted choosing the best practice response for the OHN employed by the company.
Epstein et al. 2004	Quantitative Experimental	33	Women & men with asthma	Power Pulmonary function Asthma symptoms Quality of life Depression Anxiety/ Mental imagery	NA	SS (p < .05) increase of total power scores in imagery group from week 1 to week 16; SS (p = .01) increase of choices sub-scale power scores in imagery group from week 1 to week 16. NS changes in power scores or in choices sub-scale scores in control group.
Falk-Rafael et al. 2004	Quantitative Pre-experimental	81	Nursing students (generic & RN BSN)	Empowerment Classroom empowerment / Feminist pedagogy	A= .83/.90 C= .87/.89 F= .87/.91 I= .92/.94 Pre/posttest	SS increase of empowerment scores from pretest to posttest; posttest classroom empowerment scores added to pretest empowerment; classroom empowerment scores predicted overall posttest empowerment scores.

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Lewandowski 2004	Quantitative Experimental & qualitative component (RCF)	42	Women & men with chronic pain 34 to 90 y/o	Power Pain/ Guided imagery	A = .68 - .97 C = .73 - .92 F = .75 - .92 I = .51 - .61 (Test-retest) Tot = .96 - .98	NS differences in power scores between treatment and control groups over 4 days; SS less pain in the treatment group on day 3 ($p < .01$) and on day 4 ($p < .05$) of the study.
Lunney et al. 2004	Quantitative Pre- & Quasi-experimental (BPT, NP & HLT)	12 220	Public health nurses School children	Nurses' Power Children's Health self-concept, Coping, Health behavior/ Computer-based terms	Tot = .98/.99 (Pre/posttest)	SS ($p < .05$) increase in nurses' ($N = 12$) power scores & children's ($N = 220$) number of coping strategies used; NS improvements in nurses' ($n = 6$) power or children's ($n = 103$) health outcomes in NNN group.
Massari-Novak 2004	Quantitative Descriptive Correlational (RCF)	132	Male & female generic baccalaureate nursing students	Power Transformational leadership	.88, .92, .91, .91 Tot = .97	SS ($p < .001$) relation between power & transformational leadership ($r = .54$); one significant canonical variate (awareness, freedom to act, idealized influence & inspirational motivation) explained 33% variance ($r = .57$, $p < .001$).
Shearer 2004	Quantitative Descriptive Correlational (RCF)	123	Women receiving health care 21 to 45 y/o	Health empowerment Social support Professional support	Tot = .97	SS ($p < .01$) relation of social support to health empowerment measured as PKPCT, explaining 38% of the variance.
Wang 2004	Quantitative Descriptive Correlational	86	Female adolescents 18 y/o	Power Sexual health	.84, .89, .79, .86 Tot = .95	Developing and psychometric testing of a tool for personal power and the relationship power for female adolescents' sexual health.

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Wright 2004	Quantitative Descriptive Correlational (RCF)	189	Men & women 21 to 60 y/o	Power Trust	.84, .87, .89, .87 Tot = .96	SS (p < .001) relation between power & trust of self (r = .57), power & trust (r = .49) and power & trust of others (r = .32).
Hurley 2005	Quantitative Descriptive Correlational (RCF)	124	Female nurse managers 29 to 60 y/o	Power Job satisfaction Stress	NA	SS (p < .05) correlations of power to job satisfaction (r = .40), and to stress (r = .19).
de Mattos Pimenta et al. 2006	Quantitative Descriptive Correlational	141	Male & female baccalaureate nursing students	Power Attitudes on nursing diagnosis	.87, .89, .91, .93 Tot = .96	SS (p < .001) relation between power & positions on nursing diagnosis (r = .47), and between power & satisfaction with career option (r = .38).
Siedlecki & Good 2006	Quantitative Experimental (RCF)	60	Women & men with chronic non-malignant pain 26 to 64 y/o	Power Pain Depression Disability/ Music	.96, .98	SS differences between the combined music groups and no-music control group for power (p < .05), pain (p = .002), depression (p = .001) & disability (p < .05); NS differences between the two music groups for power, pain, depression or disability.
Jones & Oliver 2007	Qualitative Focus groups (BPT)	43	African American & Latina women 18 to 25 y/o	Patterns of unprotected sex		Patterns of unprotected sex is a usual practice to maintain hope, sensuality, intimacy, strategic gain & stability with a male partner; for low power sex scripts, the salient risks of HIV were buried under women's awareness of having to satisfy a man & accept cheating; for high power sex scripts, women's awareness of worthy of self care with diverse choices.

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Larkin 2007	Quantitative Experimental (RCF)	49	Women & men with chronic physical illness	Power Self defined health promoting goals/ Support group	.78 - .94 Tot = .95 - .98	SS (p < .001) increase in power and health promoting goals in both the traditional & the Ericksonian hypnotherapeutic support groups; NS differences between the two types of groups in power or in health goals.
Shearer, Cisar & Greenberg 2007	Quantitative Experimental (RCF)	87	Women & men with heart failure 44 to 101 y/o	Purposeful participation Functional health Self management/ Empowerment	Tot = .72	NS difference in purposeful participation measured as PKPCT at 12 weeks; SS (p < .05) increase in self-management in telephone-delivered empowerment intervention group.
Smith & Broida 2007	Quantitative Pre-experimental (RCF)	20	Women & men 20 to 60 y/o	Power Pulse & B/P Pain Stress Spirituality Diversity/ TT	.93, .96	NS differences in power, diversity post-TT; SS (p < .05) correlation between power & spirituality (r = .52), and between power & diversity (r = .57).
Ackerman 2008	Quantitative Pre-experimental (RCF)	102	Women & men participating phase II cardiac rehab. Program 30 to 85 y/o	Power Social support Quality of Life Monitored exercise	.93, .95, .96, .97 .92, .95, .97, .98 (pre-program Post-program) Tot = .97/ .95 (pre/post)	SS (p < .01) increase in total and all subscale power in men (n = 66); SS (p < .05) increase in awareness in women (n = 36). Positive relation between power and quality of life, with power contributing to the variance in quality of life.

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Farren 2008	Quantitative Descriptive Correlational (RCF)	104	Women survivors of breast cancer	Power Uncertainty Self-transcendence Quality of life	.84, .85, .90, .91 Tot = .96	SS intercorrelations among the variables; power and uncertainty explained 17% of the variance in quality of life and 18% of the variance in self-transcendence.
Kim, Park & Kim 2008	Quantitative Quasi-experimental (RCF)	63	Generally healthy Korean Women & man 19 to 53 y/o	Power Well-being/ Meditation	A = .88 - .93 C = .90 - .96 F = .91 - .94 I = .90 - .95 Tot = .96 - .98	SS (p < .001) meditation x time on power; SS (p < .05) meditation x time on well-being; SS (p < .001) positive correlation between power and well-being (r = .69 to .75).
Kim et al. 2008	Quantitative Descriptive Correlational (RCF)	881	Generally healthy Korean Women & men 19 to 53 y/o	Power Well-being	.84, .89, .87, .89 Tot = .96	SS (p < .001) positive correlation between power and well-being (r = .52).
Wijesinghe 2008	Quantitative Pre-experimental (RCF)	46	Nursing home residents with chronic pain Mean age = 79	Power Pain/ Mindfulness meditation	.81, .66, .66, .40 (Test-retest) Tot = .52/.63 (Pre/post)	SS (p < .01) power enhancement from pre- to post mindfulness meditation; NS relation between power & pain.

*Reliabilities consecutively reported for awareness, choices, freedom to act intentionally, and involvement in creating change. Tot = reliability for total of items on all 4 power scales. Internal consistency reliability using Cronbach's alpha was reported unless noted otherwise. SS = statistically significant. NS = not significant.

RCF = Rogerian Conceptual Framework. BPT = Barrett's Power Theory. NA = Not available. TT = Therapeutic Touch. NP = Nursing Process. HLT = Hayakawa's Language Theory. NNN = NANDA, NIC & NOC.

Table 2. Minor Power Studies

Author & Year	Design	Sample	Population	Concepts/ Treatments	Reliability*	Major Findings
Varela 1994	Descriptive Correlational	66	Substance users living with HIV/AIDS	Power Advance directives	NA	Positive correlation between power and advance directives.
Baldini 1997	Descriptive Correlational (RCF)	36	Female nurse managers	Power Feminism	NA	NS correlation between power & feminism.
Young 1997	Descriptive Correlational	30	Nurse practitioners	Power	NA	SS negative correlation between level of education & power; positive correlation between power & age and the number of hours employed per week.
Ciarcia 1998	Descriptive Correlational (RCF)	90	Registered nurses at acute care hospital	Power	NA	Mean power scores were higher in 29 to 35 age group, MSN education, 18 to 25 years' experience, and for administrators and educators.
Pusateri 1998	Descriptive Correlational	44	Adults with noninsulin dependent diabetes 31 to 80 y/o	Empowerment Glycosylated hemoglobin	NA	NS negative correlation between empowerment & glycosylated hemoglobin; NS association between empowerment scores & selected demographics.
Nelson 2001	Descriptive Correlational (RCF)	31	Low income midlife women 45 to 55 y/o	Power Perceived healthiness	NA	SS positive correlation between power and perceived healthiness ($r =$.49, $p < .01$).
McBride 2003	Pre-post (RCF)	284	Baccalaureate nursing students	Power	NA	SS increase in power scores from pre to post educational programs in all

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			21 to 52 y/o			seven classes (p < .05).
Narcisi 2004	Descriptive Correlational (RCF)	30	Men & women age 65 & older	Power	NA	NS difference in power between elderly males & females
Heagele & Whetzel 2009	Descriptive Correlational (RCF)	10	Registered nurses who had nurse internship	Power	89, .93, .92, .95 Tot = .98	NS correlation of power to age, gender, higher nursing degree, previous employment or previous healthcare experience.

*Reliabilities consecutively reported for awareness, choices, freedom to act intentionally, and involvement in creating change. Tot = reliability for total of items on all 4 power scales. Internal consistency reliability using Cronbach's alpha was reported unless noted otherwise. NA = Not available.