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Wellness Motivation Theory in Practice

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The health benefits of physical activity are well documented, including significant decreases in risk for chronic diseases such as cardiovascular disease (CVD), hypertension, and obesity, and a concomitant decrease in mortality. However, an estimated 75% of U.S. adults do not meet the recommended 30 minutes of moderate intensity physical activity on most days of the week, and approximately 33% are completely sedentary.¹ Although data on patterns of physical activity in older adult populations are sparse, there is evidence that these groups have low levels of physical activity and high levels of consequent health risk when compared to younger populations.²

Cardiovascular disease is the single largest killer of United States (U.S.) adults and accounts for 83% of deaths among those 65 or older.³ Factors that contribute to high rates of CVD in Hispanic women include the prevalence of overweight and obesity (71.9%)⁴ and a corresponding lack of physical activity (PA) (74%).^{5, 6} Older Hispanic women are at particular risk, because after the age of 60 there are further declines in leisure-time PA.⁵ Among older Hispanic women, the prevalence of obesity is 47.9%, compared with 21.5% in non-Hispanic whites.⁷

To reduce disparity in health between Hispanic women and the general population, and to provide a basis for the development of relevant interventions, research efforts must better reflect the needs of Hispanic communities.⁸ Although interventions targeting Hispanic women have focused on counseling and health education, they may not adequately address the unique cultural needs of Hispanic women.^{9, 10} Thus attention to cultural relevance in intervention development, implementation, and evaluation is essential.¹¹

The purpose of this paper is to describe a theory-driven approach to developing a culturally relevant motivational intervention to promote physical activity among older Hispanic women. The wellness motivation theory (WMT) guided development of *Intervención de Motivación Para Actividad Física* [Motivational Intervention for Physical Activity], grounded in formative research, partnership with community members, and strengths of community-based physical activity interventions with Hispanic women. *Intervención de Motivación Para Actividad Física* focuses on the mechanisms that link motivational resources to physical activity, fostering social contextual and behavioral change process resources. A summary of the critical elements of program theory underlying *Intervención de Motivación Para Actividad Física* appears in Table 1.

Problem Definition

Motivation translated into Spanish, *motivación*, means reason, which is consistent with Fleury's¹² conceptualization of motivation as "Empowering Potential," or health behavior change initiated and sustained consistent with an individual's unique values, needs and priorities. The concept of motivation has been used in health guides for Hispanic women, where self-knowledge leads to understanding the motivating factor, or reasons for planning and integrating physical activity into everyday life.¹³ The WMT conceptualizes motivation for health behavior change as dynamic intention formation and goal-directed behavior leading to new and positive health patterns. It provides an understanding of behavior appraisal and change toward a healthier lifestyle,¹² and acknowledges the person interacting with their environment through social contextual influences, behavior change processes, and actualization of risk-reducing health behavior.¹⁴

Social contextual influences originate within individuals or as part of the sociocultural and physical environment. Social contextual influences have significant impact on behavioral change processes, physical activity initiation and maintenance.¹⁵ Resources to engage in physical activity, cultural factors, and patient-provider interaction are contextual factors that may influence behavior risk modification.¹⁶ Barriers include concerns about safety, lack of available programs and cost.¹⁷ Social support from family, friends, and church members are part of the social context that may affect sense of well-being and health.¹⁵

Behavioral change processes reflect ways in which individuals create and evaluate goals, establish standards and strategies for behavioral change, and regulate and strengthen patterns that result in behavioral change. The behavioral change process involves self-knowledge, motivation appraisal and self-regulation, and reflects the propensity to strive toward new goals and move beyond goals that have been achieved.^{18, 19} Self-knowledge provides a context for meaning through which individuals acknowledge their hopes and fears for future health outcomes and facilitates the activation of needed processes to achieve health goals.²⁰ Readiness to initiate behavioral change involves motivation appraisal as intention formation for goal directed behavior, which is related to personal beliefs and values, identified information and resources, and goals.¹² Through self-regulation, goal intentions are transformed into personalized action. Self-regulation is guided by cultural, environmental, economic factors and responses to personal and contextual cues such as family or community environment.¹⁵ Action occurs in response to social contextual influences and behavioral change process.²¹

Critical Inputs

To meet its goal of promoting the adoption and maintenance of physical activity among Hispanic women, *Intervención de Motivación Para Actividad Física* operationalizes key dimensions of the WMT. The cultural relevance of WMT concepts are supported by preliminary research and a review of the literature as relevant factors in promoting physical activity in older Hispanic women. Participants who receive the *Intervención de Motivación Para Actividad Física* will identify more social contextual resources, report higher levels of behavioral change process variables including self-knowledge, motivation appraisal, and the use of self-regulatory strategies consistent with moderate intensity walking, and improve related cardiovascular health outcomes.

Based on theoretical and empirical testing of the WMT and incorporating the contributions of prior intervention research, the critical inputs of the intervention are designed to: (a) Promote the capacity to recognize and create social contextual resources for walking behavior. From a culturally-relevant perspective, social contextual influences are operationalized by enhancing social network support through group activity and identification and development of social and

contextual resources. (b) Encourage dialog about individual and community resources and strategies for change through empowering education. Empowering education used a reflective approach for providing information, anticipatory planning, and problem solving, consistent with individual goals. (c) Foster motivational skills to promote and the adoption and maintenance of walking through problem solving, goal determination and shaping, strategy formation, self-regulatory strategies, self-monitoring, and anticipatory problem solving. Motivation appraisal is operationalized through focus on goals, concerns and priorities, and development of skills to achieve valued goals; such as emphasizing family role and health of family, or caring for oneself as a way to care for others. Self-regulation is operationalized in *Intervención de Motivación Para Actividad Fisica* through problem solving strategies specific to cultural, contextual or environmental barriers, as well as targeting barriers, resources, and concerns identified by participants. Strategies include cognitive, affective and behavior strategies consistent with valued goals, even when goals conflict or change.¹⁵

To facilitate the dimensions of the WMT, course content is delivered over 12 sessions delivered in a group format, using three teaching modes: didactic, group discussion, and “hands-on” experience. Moderate-intensity lifestyle activity will be used to promote physical activity; found to be acceptable across a variety of populations and relevant in addressing individual, social contextual, and environmental barriers.²² Research emphasizes the importance of a focus on moderate-intensity lifestyle PA, for interventions promoting physical activity in women.²³ Community-based interventions using lifestyle activity changes among Latinas through moderate-intensity walking have yielded positive physical activity and cardiovascular health outcomes.^{24–26}

Mediators

The intended effect of *Intervención de Motivación Para Actividad Fisica* are changes in the cardiovascular health outcome variables of body mass index (BMI), body composition, and body fat distribution. Achievement of these outcomes is contingent on changes in instrumental outcomes, increased and sustained moderate intensity physical activity relative to baseline values, particularly walking, measured as steps per day using individual pedometers. In turn, for positive changes in regular physical activity to occur, the women should increase in the intermediate outcomes of social contextual resources (perceived social support, perceived community resources), and individual behavioral change process variables (self-knowledge, motivation appraisal, self-regulation). Social contextual resources are significant to creating a supportive personal and ecological environment to promote moderate intensity walking. Social resources include support from the social network and support systems consistent with cultural factors and norms. Among older adults, group cohesiveness and support facilitate regular physical activity.²⁷ Contextual resources reflect the degree to which social and organizational resources for physical activity are perceived as present in the community. Awareness of community resources for physical activity may have a significant influence on the performance of health behaviors.^{28, 29} Behavioral change processes reflect the ways in which older adults create and evaluate goals, establish standards for individual and community change, determine behavioral strategies, and regulate and strengthen patterns of behavioral change.^{12, 21} Kendzierski^{30, 31} has supported the relationship between levels of self-knowledge concerning physical activity and the use of self-regulatory strategies to maintain activity. The role of self-knowledge has been found to be important among older minority populations in which possible-selves have served as motivational forces in achieving health goals.²⁰ Preliminary focus group data indicate that indeed, older Hispanic women describe how they imagine themselves engaging in physical activity, not only for desired health outcomes, but also to help serve as role models for children and grandchildren. Through motivation appraisal, individuals assess their goals, make judgments about the means best suited to attain goals, generate plans and strategies for goal attainment, engage in problem solving, and determine commitment to

valued outcomes.^{12, 21, 32} The creation and commitment to a plan for action can activate information about the self and relevant resources to mobilize goal-directed behaviors.³³ This process has been linked to a number of positive health behaviors, including participation in moderate intensity physical activity.³⁴ Self-regulation reflects a process through which individuals attempt to make strategies for behavioral change congruent with goals, particularly when goals conflict or change over time. Self-regulation includes cognitive, affective, and behavioral strategies, including cognitive restructuring, stimulus control, and self-monitoring, which foster evaluation of goal achievement, and appraisal of efforts at self-management.^{35, 36} Gains in perceived social support resources is based on the women attending 12 of the group sessions and participating in the 12 booster sessions, perceiving the content of the program as helpful, and being satisfied with the program.

Expected Outcomes

The intended effect of *Intervención de Motivación Para Actividad Fisica* are changes in the cardiovascular health outcome variables of body mass index (BMI), body composition, and blood pressure. Changes in cardiovascular health outcomes are anticipated to take place at 12 weeks following initiation of the program and only after improvement in perceived social contextual resources and behavioral change process variables and regular physical activity are attained.

Exogenous Factors

In *Intervención de Motivación Para Actividad Fisica*, factors identified which might impact the receipt and development of social contextual and behavioral change process resources include prior experience interacting with others in a group setting, comfort sharing personal goals, and efforts at setting goals and developing strategies. Factors which may impact participation in moderate-intensity physical activity include the women's functional status and past experience with physical activity. Participants in the intervention are sedentary at baseline, and all are screened for safe participation in physical activity, decreasing variability in functional status and current participation in physical activity. Well-documented core Latino values as they relate to CVD risk factor reduction/prevention include: familialism, the significance of the family that help motivate the individual, collectivism, the importance of friends and extended family, simpatico, the need for smooth interpersonal relationships in which criticism and confrontation are discourages, personalismo, the preference for relationships with members of the in-group which validates the group format of the intervention, respeto, the need to maintain one's personal integrity and allow for face-saving strategies or behavior change maintenance.³⁷ Intervention curriculum and delivery are sensitive to these cultural values. *Intervención de Motivación Para Actividad Fisica* will be conducted in an urban community setting. As the identification of safe places to walk in the community might be an issue for participants, intervention content will promote the identification and development of resources for safe walking.

Implementation Issues

For *Intervención de Motivación Para Actividad Fisica* the material resources needed include: a meeting area in a quiet, community-based setting which will allow for group discussion and interaction, written materials and picture diagrams that summarize the information provided, a safe walking path or track to conduct guided walks to experience physical activity as part of the supportive motivational process, appropriate footwear and clothing for women to practice walking. To promote social contextual and behavioral change process variables in a culturally relevant format, the intervention will be delivered by a Hispanic, bilingual interventionist with an understanding of community resources and dynamics, have adequate knowledge of moderate-intensity physical activity, the unique resources embedded in the Hispanic culture,

the unique barriers to physical activity faced by Hispanic women, have acceptable communication and supportive skills responsive to women's needs and concerns. A manualized protocol to guide intervention delivery and evaluation of treatment fidelity has been developed. Interventionists will participate in a training program and are asked to adhere to the intervention protocol in order to maintain consistency in program implementation.

Application to Clinical Practice

It is important for researchers and health care practitioners to develop and implement strong theory-based programs when working with Hispanic communities, to provide constructs and evaluation tools that bridge the gap between theory and practice.^{10, 38} Clinicians who implement exercise programs with older women may use intervention strategies that attend to individual and community supports, cultural and contextual resources, and strengths to promote regular physical activity. The elements of the WMT may guide clinicians in the application of culturally-relevant strategies to promote physical activity consistent with individual values, goals, supports and resources.

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References

1. Morbidity & mortality weekly reports. United States: Morbidity & Mortality Weekly Reports 2001;49:420–425.
2. Department of Health and Human Services, Center for Disease Control and Prevention. Overweight and obesity. [Accessed October 10, 2008]. Available at: <http://www.cdc.gov.ezproxy1.lib.asu.edu/nccdphp/dnpa/obesity/index.htm>
3. American Heart Association (AHA). AHA statistical update: Heart disease and stroke statistics—2007 update: A report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. *Circulation*. 2007 115:e69–e171. [PubMed: 17194875]
4. Flegal KM, Carroll MD, Ogden CL, Johnson CL. Prevalence and trends in obesity among US adults, 1999–2000. *JAMA* 2002;288:1723–1727. [PubMed: 12365955]
5. Crespo CJ, Smit E, Andersen RE, Carter-Pokras O, Ainsworth BE. Race/ethnicity, social class and their relation to physical inactivity during leisure time: Results from the third national health and nutrition examination survey, 1988–1994. *Am J Prev Med* 2000;18:46–53. [PubMed: 10808982]
6. Pandey DK, Labarthe DR, Goff DC, Chan W, Nichaman MZ. Community-wide coronary heart disease mortality in Mexican-Americans equals or exceeds that in non-Hispanic whites: The Corpus Christi heart project. *Am J Med* 2001;110:81–87. [PubMed: 11165547]
7. Ostir GV, Markides KS, Freeman DH Jr, Goodwin JS. Obesity and health conditions in elderly Mexican Americans: The Hispanic EPESE (established population for epidemiologic studies of the elderly). *Ethn Dis* 2000;10:31–38. [PubMed: 10764128]
8. U.S. Department of Health and Human Services. Health information for older adults. [Accessed October 27, 2006]. Available at: <http://www.cdc.gov.ezproxy1.lib.asu.edu/aging/info.htm>
9. Staten, LK.; Mercado, KY.; Ranger-Moore, J., et al. Provider counseling, health education, and community health workers: The Arizona WISEWOMAN project; J WOMENS HEALTH (15409996). 2004. p. 547-556. Available from: <http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=2005037125&site=ehost-live>
10. Soto FG, Kane WM, Going S, et al. Camine con nosotros: Connecting theory and practice for promoting physical activity among Hispanic women. *Health Promot Pract* 2000;1:178–187.
11. Chao GT, Moon H. The cultural mosaic: A metatheory for understanding the complexity of culture. *J Appl Psychol* 2005;90:1128–1140. [PubMed: 16316269]

12. Fleury JD. Empowering potential: A theory of wellness motivation. *Nurs Res* 1991;40:286–291. [PubMed: 1896327]
13. Delgado, J. *Salud: A Latina's Guide to Total Health*. New York, NY: Rayo: Harper Collins Publishers; 2002.
14. Fleury, J.; Harrell, J.; Cobb, B. Regular physical activity in older African Americans. In: Funk, SG.; Tornquist, EM.; Leeman, J.; Miles, JS.; Harrell, JS., editors. *Key Aspects of Preventing and Managing Chronic Illness*. New York, NY: Springer; 2001. p. 84-94.
15. Fleury J, Thomas T, Ratledge K. Promoting wellness in individuals with coronary heart disease. *Journal of cardiovascular nursing* 1997;3:26–42.
16. Eyler AA, Matson-Koffman D, Rohm Young D, et al. Quantitative study of correlates of physical activity in women from diverse racial/ethnic groups: Women's cardiovascular health network project—introduction and methodology. *Am J Prev Med* 2003;25:5–14. [PubMed: 14499804]
17. Eyler AA, Baker E, Cromer L, King AC, Brownson RC, Donatelle RJ. Physical activity and minority women: A qualitative study. *Health Educ Behav* 1998;25:640–652. [PubMed: 9768383]
18. Keele-Smith R, Leon T. Evaluation of individually tailored interventions on exercise adherence. *West J Nurs Res* 2003;25:623–40. [PubMed: 14528615]discussion 641–51
19. Conn VS, Burks KJ, Minor MA, Mehr DR. Randomized trial of two interventions to increase older women's exercise. *American Journal of Health behavior* 2003;27:380–388. [PubMed: 12882432]
20. Fleury J, Sedikides C. Wellness motivation in cardiac rehabilitation: The role of self-knowledge in cardiovascular risk modification. *Research in Nursing & Health* 2007;30:373–384. [PubMed: 17654518]
21. Fleury J. Wellness motivation theory: An exploration of theoretical relevance. *Nurs Res* 1996;45:277–283. [PubMed: 8831654]
22. Dunn AL, Andersen RE, Jakicic JM. Lifestyle physical activity interventions. history, short- and long-term effects, and recommendations. *Am J Prev Med* 1998;15:398–412. [PubMed: 9838980]
23. Krummel DA, Koffman DM, Bronner Y, et al. Cardiovascular health interventions in women: What works? *J Womens Health Gend Based Med* 2001;10:117–136. [PubMed: 11268297]
24. Avila P, Hovell MF. Physical activity training for weight loss in Latinas: A controlled trial. *Int J Obes Relat Metab Disord* 1994;18:476–482. [PubMed: 7920873]
25. Keller C, Gonzales-Cantu A. Camina por salud: Walking in Mexican American women. *Applied nursing research* 2008;21:110. [PubMed: 18457751]
26. Keller C, Trevino RP. Effects of two frequencies of walking on cardiovascular risk factor reduction in Mexican American women. *Res Nurs Health* 2001;24:390–401. [PubMed: 11746068]
27. Tannenbaum CB, Nasmith L, Mayo N. Understanding older women's health care concerns: A qualitative study. *Journal of women and aging* 2003;15:103–116. [PubMed: 14750592]
28. Task Force on Community Preventive Services. *The guide to community preventive services (community guide)*. Available at: <http://www.thecommunityguide.org/index.html> 2005
29. Minkler, M.; Wallerstein, N. Improving health through community resources. In: Minkler, M., editor. *Community Organizing and Community Building for Health*. New Brunswick, NJ: Rutgers University Press; 2004. p. 30-52.
30. Kendzierski, D. Schema theory: An information processing focus. In: Dishman, RK., editor. *Advances in Exercise Adherence*. Champaign, IL: Human Kinetics; 1994. p. 137-159.
31. Kendzierski D. Self-schemata and exercise. *Basic and applied social psychology* 1988;9:45–59.
32. Fleury, J.; Cameron-Go, K. Index of readiness: Development and psychometric analysis. In: Strickland, CL.; Waltz, C., editors. *Measurement of Nursing Outcomes*. New York, NY: Springer; 2003. p. 265-276.
33. Biggs J, Fleury J. An exploration of perceived barriers to cardiovascular risk reduction. *Cardiovasc Nurs* 1994;30:41–46. [PubMed: 7882410]
34. Fleury J, Belyea M, Harrell J. Physical activity among elderly African Americans: A test of the wellness motivation theory. *Annals of Behavioral Medicine*. 2000
35. Ewart CK. Social action theory for public health psychology. *American Psychologist* 1991;46:931–946. [PubMed: 1958012]

36. Karoly P. Mechanisms of self-regulation: A systems view. *Annual review of psychology* 1993;44:23–52.
37. Marin, G.; Marin, B. *Research with Hispanic Populations*. Newbury Park, CA: Sage Publications; 1991.
38. Speck, BJ.; Harrell, JS. Maintaining regular physical activity in women: Evidence to date ; *J Cardiovasc Nurs*. 2003. p. 282-293. Available from:
<http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=2004011356&site=ehost-live>

Table 1
Elements of Program Theory Underlying *Mujeres en Accion*

Problem	Critical Inputs	Mediating Processes	Expected Outcomes	Exogenous Factors	Implement Issues
Limited motivation resources	Social network support	Social contextual resources	CVD health BMI	Participant characteristic	Material resources
Physical inactivity	Empowering education Motivation support	Behavioral change process Physical activity	BP	Cultural consideration Setting safety Availability of resources	Community setting Safe walking area Intervention Delivery