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HARMONY AND TENSION IN CHILD CARE WORK: IMPLICATIONS FOR OCCUPATIONAL FCS EDUCATION

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The purpose of this study was to explore how aesthetic concepts of harmony and tension contribute to the vocational goals and perceptions of students preparing for child care work.[1] *Nine students, recently or currently enrolled in occupational family and consumer sciences (FCS) child care programs and courses, were interviewed regarding their perceptions of harmony and tension in their schooling and work. Respondents indicated that they experience harmony in their love of children, enjoyment of teamwork, and personal mission to help children. Their interest in child care services often began in childhood, then grew stronger with hands-on experience in child care labs or centers. Although several participants briefly mentioned a desire for better wages and more respect from society, such tensions seemed to be accepted and not critically questioned. Educators in occupational child care programs should strengthen curriculum to help learners identify, critique, and address tensions such as low status and low pay within the larger societal environment.*

Drawing on Dewey's concept of art as experience (1934), scholars continue to argue that aesthetic quality occurs whenever we detect tensions between multiple and conflicting elements and consequently seek meaningful harmony, order, and purpose (Broudy, 1972; Eisner, 1990; Kupfer, 1983). We experience harmony as we arrange details into coherent long-term plans, respond to external demands in a meaningful way, engage in activities that evoke positive feelings, and live out significant values and themes. We can experience tension when certain aspects of our lives are frustrating or distasteful, when unexpected events thwart our plans, or when new goals produce uncertainty (Zuo, 1998).

Child care work involves an astounding array of experiences that can produce harmony and tension--from implementing creative lesson plans to complying with strict regulations, from providing emotional support and discipline to giving basic physical care (Lindsay & Lindsay, 1987). Child workers consider their daily work to be motivating and interesting, and they experience a high degree of harmony and satisfaction (Curbow, 1990; Manlove & Guzell, 1997). However, research seems to focus on tensions such as burnout, stress, and low wages that threaten this sense of harmony (Curbow; Fuqua & Couture, 1986; Lindsay & Lindsay; Wolf & Walsh, 1998). Students preparing for child care work can expect to experience both harmony and tension as they enter the dynamic, complex, and changing child care environment.

Although students would benefit from understanding factors that produce harmony and tension in child care work, occupational family and consumer sciences (FCS) curriculum tends to emphasize technical "competencies" and "employability skills" (Combs & Hall, 1996; Kreutzer, & Weis, 1988). The goal is to shape students' knowledge and skills to fit with responsibilities in

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the child care industry. Although the development of skills needed to succeed in child care certainly is not wrong in itself, a sole emphasis on skills can eclipse attention to larger societal tensions and political issues that condition work (Samper & Lakes, 1994).

The purpose of this study was to draw on the concepts of harmony and tension to explore vocational beliefs, attitudes, and meanings of students enrolled in occupational FCS child care programs at secondary, postsecondary, or certificate levels. Research questions were:

- In what ways do students preparing for the child care field describe their choice of work, factors influencing their choice, and sense of career development?
- What types of harmony appear salient to their personal sense of work and vocation?
- What tensions appear salient to their personal sense of work and vocation?

The study also was intended to draw out implications for occupational FCS education in the area of child care services.

Harmony and Tension in Child Care Work

Aesthetic experience occurs whenever individuals take an active role in harmonizing the multiple and often-disparate elements of their everyday lives into mutually enhancing relationships, a meaningful sense of purpose, and satisfying values and life themes (Kupfer, 1983).

> In aesthetic experience, we respond to what is presented to us by discriminating among its constituents so as to integrate them into a unified whole. The whole is formed out of the interaction among its parts. While these parts are distinct, . . . their relations with one another and their place in the whole is [sic] decisive for their meaning and their value . . . . The parts are interdependent, forming a kind of community. (Kupfer, 1983, p. 4)

Because each person faces a different work situation and environment, with particular elements and unique relationships, vocational development can be viewed from an implicitly aesthetic perspective (Rehm, 1993, 1998, 1999).

Contextual Framework: Harmony and Tension

The numerous elements of a vocation--including goals and opportunities to achieve goals, relationships with people, and personality traits--provide many possibilities for both aesthetic tension and harmony. On one hand, individuals experience aesthetic harmony when they are able to draw from the available elements to create a meaningful balance and a satisfying sense of coherence. On the other hand, tension results when individuals consider a number of the elements to be so unappealing or overwhelming that they are unable to create a sense of meaning, harmony, or order to their experience (Broudy, 1972; Eisner, 1990).

The aesthetic challenge is to strike a balance between harmony and tension for vocational satisfaction and development. Tensions can positively challenge personal growth and motivate positive development, yet too much tension can lead to personal dissatisfaction, failure, or despair. Harmony can provide joy and satisfaction, yet too much harmony can lead to unquestioned routines, boredom, or indifference (Broudy, 1972; Kupfer, 1983). Because some people thrive when faced with uncertainty and others need stability, harmony and tension are somewhat individualized.

Research suggests that child care work offers a rich environment full of tension and harmony. Small and Dodge (1988) reveal an astonishing range and number of roles, skills, and job tasks associated with professional child care work. These include value-laden responsibilities to nurture and discipline, educative functions to teach everything from hygiene to social skills, and legal duties to enforce state regulations. Workers must respond to numerous tensions and unify multiple tasks in order to care for children and still maintain their own sense of energy and motivation.

Although an understanding of individual meanings and experiences regarding harmony and tension in child care work would benefit FCS educators, related research from the occupational student's perspective is clearly lacking. Hultgren's 1996 review of research included no studies regarding the meanings and experiences of students in occupational child care programs, and the authors' own search produced no further studies since that time. Perhaps research intended to learn more about personal meanings and experiences of occupational child care students is negated by demands to meet technical criteria specified by federal and state funding agencies (Andrian, 1986; Stout & Martin, 1996). We can, however, glean some idea of harmony and tension facing students from the existing body of literature on child care workers.

Harmony in Child Care: Purpose, Autonomy, and Relationship

Research indicates that child care workers have high degrees of harmony with their daily activities. The skills involved in the work are in accord with their love of children, cognitive interest in understanding child development principles, and affinity for direct personal relationships with children (Tuominen, 2000). Individuals with decision-making power have opportunities to harmonize their situations in independent and personally satisfying ways. Child care workers who have freedom and authority to apply their knowledge and skills rate their jobs as highly satisfying (Lindsay & Lindsay, 1987). Those who believe that they can control their environment express higher levels of achievement and lower levels of stress (Fuqua & Couture, 1986).

Although child care workers enjoy personal freedom and power to express creativity and knowledge, Boyd and Schneider (1997) note they simultaneously have "a desire for a shared vision or philosophy" (p. 178). Highly relational people thrive in the field (Manfredi/Petitt, 1993) and experience a strong sense of harmony in working directly with children (Tuominen, 2000). They feel comfortable in environments in which they are guided by a group philosophy and have frequent opportunities to contribute to the shared goals of a team.

Tensions in Child Care: Burnout, Stress, and Context

Interestingly, a large portion of research seems to focus on negative tensions experienced by child care workers. One of the most pervasive problems seems to be burnout, defined as the process of becoming emotionally exhausted, detached, and helpless (Manlove, 1993; McMullen & Krantz, 1988). Personality traits are often used to distinguish satisfied from dissatisfied child care workers, and highly reactive individuals with an external locus of control have difficulty managing stress (Curbow, 1990; Fuqua & Couture, 1986). Individuals who cannot situate particular problems within a larger unifying purpose or meaning, or cannot design strategies for resolving challenges, experience a sense of negative tension.

Whereas some negative tensions arise due to personality traits, others are associated with particular child care environments. Settings become problematic for a number of reasons: workers are expected to fulfill conflicting roles and experience role ambiguity (Manlove, 1993),

support and decision-making opportunities are lacking (Boyd & Schneider, 1997), income is insufficient (Bollin, 1993), or isolation from other adult workers is high (Curbow, 1990; Tuomin, 2000).

Particular tensions may vary according to whether the care situation is structured as a profit, nonprofit, or family day care. Individuals who provide family day care consider themselves paid professionals who expect parents to pick their children up by closing hours and to pay on time; yet they struggle with emotional attachments with those they serve and often break their own rules to avoid interfering with the relationship (Bollin, 1993). Multicultural diversity has been associated with unintentional misunderstandings between workers and parents concerning the treatment of children (Bernhard, Lefebvre, Kilbride, Chud, & Lange, 1998).

Reflecting the aesthetic principle that a rich social environment "squanders none of the talent, industry, or capacity of its members" (Kupfer, 1983, p. 74), some researchers have critiqued child care work within the larger community. Job satisfaction is "continually challenged by the limited wages, few benefits, and the providers' own perceptions that society considers child care a low status, low skilled position" (Goelman & Guo, 1998, p. 186-187). Modigliani (1986) claims that child care employees acknowledge "a bitter tension between their own appreciation for their work and society's lack of appreciation" (p. 53).

Wolf and Walsh (1998) take a critical look at the tensions within the political context of child care, asserting that "the long, demanding and poorly compensated days" (p. 43) of child care work are increasingly regulated by state agencies. Although these authors acknowledge that specific standards are not bad in themselves, the increasingly prescriptive nature of licensing leads to more supervision and less personal freedom for workers. They argue that workers must take a political stance and participate in the decision-making processes that affect them.

Tuominen (2000) similarly argues that workers must question ideologies that oppress them. For example, child care workers suffer low wages and low status because the "private" nature of their work renders their societal service and economic value invisible. Thus, a major challenge in addressing these externally imposed tensions is for workers to increase their personal capacity for social critique and their cumulative power for action in the political context.

Tensions can play a positive role in vocational life when they spark motivation, pose an interesting challenge, and spawn action toward change. The tensions implicit within significant unanswered questions or meaningful goals can compel workers to move forward to transform their own thinking and the quality of their environment. However, research indicates that child care workers who do experience tensions such as burnout tend to leave the field (Manlove & Guzell, 1997) rather than embracing the political arena as a place to address poor working conditions or improve other tension-producing situations (Wolf & Walsh, 1998).

Students who are studying to be child care workers in occupational programs at different educational "articulation" levels (Villafaña, 1995) have not been studied for their individualized meanings. Given the complex nature of child care work, occupational FCS educators would benefit from a deeper understanding of why students enter the field and how they perceive the harmony and tension involved.

Methodology

Only recently have qualitative studies (Tuominen, 2000; Wolf & Walsh, 1998) attempted to address the meanings and lived experience of child care work. This exploratory research

involved a small sample and personal interviews to capture child care students' personal meanings and unique viewpoints regarding the harmony and tension in their vocational area.

Sample

Nine students currently or recently involved with some form of occupational child care education were selected for inclusion in the study. The students all worked in school based or community child care settings. Although the results from this small sample are not intended to be generalized, the study's validity can be judged by whether or not it reveals new insights into child care work experience, illuminates theory and contributes knowledge regarding harmony and tension, and suggests improvements for practice (Patton, 1990).

Names of potential participants were gathered from key administrators and teachers at a community college, a vocational-technical school, and a large child care center that encouraged worker education within a medium-sized southern city. Selection criteria included: currently or recently involved with some type of occupational education for child care work, involved with practical work in a child care laboratory or community center, and willing to participate. The Appendix provides a brief overview of participants' pseudonyms, age, ethnicity, and educational level. Eight participants were female and one was male. There were three African Americans, three Caucasians, one Hispanic, and two of West Indian decent. Two had children, and all were under 35 years of age. Bette was a high school student attending a vocational child care program half-days; three participants (Ally, Chris, Darcy) attended a vocational-technical program; Errol, Faye, and Gail had earned associate degrees from a community college; Irene attended a community college; and Hanna recently acquired a Child Development Associate (CDA) credential. The sample was educationally motivated and many already were beginning to pursue further education, not surprising given the fact that they lived in a university town with plentiful educational opportunities.

Procedure

Interviews were used to collect data because they provide a means to enter into another person's perspective (Patton, 1990). They generate descriptive detail, reveal individual constructions of meaning, suggest differences and similarities among individuals within a sample, and illuminate theory. Interviews were considered valuable in learning more about how students, with experience in occupational programs and child care services, think about tension and harmony in their chosen field.

A structured interview guide comprised of open-ended questions was developed by the researchers to gain information about each participant's general beliefs, meanings, and attitudes regarding their education and work in child care. In order to gain insight into factors that contribute to a sense of harmony, several questions focused on personality traits, interests and values, and satisfactions regarding child care work. In order to gain understanding about factors that produce tension, other questions pertained to dislikes, obstacles, and desired changes or goals. Several questions dealt with motivations for entering child care work, personal development, and future goals.

Interviews were conducted in each participant's home, workplace, or school site and audio-taped. Although a few participants spoke somewhat eloquently, most participants were concise and did not elaborate in detail even upon probing. Thus, most interviews lasted only about 30 minutes. Following verbatim transcriptions of tapes, individual interviews were analyzed as follows: A timeline sketch was devised for each student regarding initial interest,

key experiences, and future goals. Key themes were identified within each individual's interview narrative with a focus on those concerning tensions and harmony. Individual themes of harmony and tension then were compared and contrasted with others in the sample. Finally, larger categories of relationship among themes were generated and examined in light of existing research (Miles & Huberman, 1994; Patton, 1990). Because of the small sample and exploratory nature of the study, no attempt was made to distinguish patterns of difference based on gender, race, age, or program type or level.

Findings

Participants described only minimal tensions, and these were not considered numerous or overly problematic. Participants devoted more time and enthusiasm to describing a sense of harmony in relation to personal love of children, satisfying and joyful experiences with children, and a higher mission to benefit the very educational, civic, and personal futures of children. The choice of career was often but not always rooted in childhood, harmonized with future goals, and unified with a worldview that valued direct interaction and involvement with children but ignored social critique and activism.

Harmony with Children

Students preparing for child care work experienced several types of harmony. First and foremost, they felt a passionate connection between their heart and vocational choice. They seemed to possess a fundamental, spontaneous, and innate love of being with children that harmonized with their past experience and future dreams. Moreover, they indicated a sense of harmony in a strong sense of calling or mission to make a positive, long-term impact on children's lives.

"Just being with the kids." Participants expressed a heartfelt love and harmony in simply "being with the kids." When asked what they liked best about child care work, all participants gave a similar passionate answer: "The kids." "The smiles." "I love the kids." "The kids pull you." "I absolutely adore them." Even the participants who were enrolled full time in a vocational child care program and had no paid work experience much preferred the "awesome" hands-on laboratory experience at the on-campus child care center over the "book work."

Participants possessed a cognitive interest in the ways that children grow and develop; they enjoyed "helping them learn" through varied activities such as reading stories, drama, science, cooking, water play, finger painting, and "messy" play. They showed a nurturing interest in "just taking care of all these kids." And they expressed a fun-loving perspective: "They bring out the kid in me. I like to play with them." Although such activities might appear simple or insignificant to outsiders, these participants envisioned a much larger meaning and value to their daily interactions with children.

On a mission to contribute to meaningful lives. When asked to describe their goals, participants felt that daily activities of stories, play, and basic care were essential to a much greater mission. They experienced harmony not only in the presence of kids, but they felt a harmony with the future. Their comments indicated a passionate belief that they can play a significant role in shaping cognitive, social, emotional, and physical capabilities to "better the kids' future."

- Children are making bad decisions more and more as the years go on and I want to help. I want to make a change in children' s lives and affect how they are when they grow up. I want to be part of that. (Bette)

- I am responsible for making sure, number one, that the children are safe and healthy, and teaching them how to be real individuals and be affectionate. (Errol)
- Open their minds a little more. That's a really good thing to be part of that stuff in someone's life, somebody else's child. (Irene)
- I hope that I can teach my kids some of the values that my parents have taught me so that when they grow up they are not in jail somewhere. (Gail)

These participants felt a spiritual harmony with their mission, fully expecting to play a significant role in the children's quality of life in the future. By helping each child, they wholeheartedly believed they were contributing a valuable service to society.

Coming to child care work and continuing to dream. Harmony appeared in participants' development and growth in finding a career that meshed with childhood experiences, personal themes and interests, and dreams for the future. Memories from the past and a sense of purpose served as important forces in the career choice. They remembered particular experiences that provided knowledge about children, enhanced understanding of others, strengthened personal identity, and solidified their vocational direction.

Interestingly, two participants decided to pursue a profession with children because they wanted to help other young people avoid certain tensions they had experienced. Bette drew upon her own differences with her family to set a goal, unique within this sample, to bring parents and children together.

- In ninth grade I got in trouble and actually got arrested. I have a great family and I do stuff with them. But I can't tell my Mom I want to do this, this, and this without getting into trouble because they don't like people I hang around with. And I decided that if I can help the parents and children come together, they won't end up making the same mistakes I did.

Although Bette indicated specific educational goals to earn her CDA credential on through graduate degrees in child development, a personal theme of assisting parents and children become "best friends" and have "the best relationship" underlined her career interests.

Hanna recently earned her CDA and found harmony in child care work gradually. Several things seemed to come together in her sense of career. Her own experience of being left out as a child gave her a special sensitivity to children's feelings.

- For me being a child, I wasn't treated really bad or anything, but sometimes some kids get left out if they are not as pretty as the other little girls would be. And that kind of touched my heart. I was like, I don't ever want to be like that toward anybody, because that person is just as beautiful as the other little girl could be. That was the biggest thing in my childhood experience impacting my job.

After getting a child care job, she realized "the longer I stayed the more I got to like it." Hanna also tried an office job and didn't like it. She began to recognize how much she cared for children, and she now dreams about being that special caregiver that prompts children to come back later and say, "I remember Miss Hanna!" She liked to "take notes on everything" because she hopes to open her own center in the future.

Most participants had very positive childhood memories that played a role in their sense of vocational harmony. Errol did not plan to work with children until he saw that friends in the field were having fun, "ended up liking it more than I thought," and now seems to realize that he can model the positive values he learned from his family.

- I was raised in a nice home, people took care of me and I felt that, if kids want to move up to be like who I am--and I think I am doing pretty good, I have to apply the same concepts towards them.

Although Errol did not yet have a specific work goal, his family and his appreciation of "kind and understanding people who helped me along the way" seemed to relate to a "teamwork" theme. His numerous references to being able to get along well with people contributed to a sense that his personality was a "good fit" for working with children.

Other participants identified helping children as a career while they were still young themselves. Gail traced her interest in children to the third grade: "I was always interacting with kids younger than I was. I'd help them with their homework after school or do after school games." She spent quite a bit of time helping her cousin with a learning disability and believes she played a role in his current plan to attend college. Although Gail eventually hopes to become a center director as she gets older and has "less energy to teach," she plans to "always be connected to kids." She identified child care as a career reflecting her own supportive family--providing opportunities for close-knit relationships and passing along "all the values that my parents instilled in me."

Irene, enrolled in a community college child development program and working on her state's 20-hour certificate in child care, also had very positive early memories.

- I had a really, really good child care experience where I went to preschool, where I went to elementary school. Even now I might see one of my teachers and they are smiling still. I know that I could give that back.

Irene was particularly "pulled in" by the fascinating questions regarding the actions of individual children: "What is sparking something in their mind? Where did they come up with this story? Where are they going?" Her goal was to use her vivid imagination and own a day care center where she could "be a teacher, caregiver, and role model."

Ally's career choice was similarly rooted in childhood: "When I was a little girl I used to love to be a teacher, and wanted to be a teacher when I grew up. That has been my dream to work with kids." As a full-time student at a vocational-technical school, she wanted to "learn from the teachers" so she could "better the kids' future." Chris, also a full-time student at the same school, "didn't have much option. I like to work with kids. So I said, start early, and learn their ways and actions, and the system." Although Chris was paying for her schooling by working in restaurants, her long-term goal was to own a child care business with her mom.

Darcy had very specific goals to become a 2-year-old teacher at a church preschool, then eventually open her own day care. She decided that she wanted "to just work with kids" as a teenager.

- My friends had babies, and I became a nanny who took care of my friend's kids. I started hanging around and having fun with kids. I wanted a career where I didn't care so much about the money. I just want to be happy.

Since entering a child care program at the local vocational-technical school, Darcy learned that harmony grows in a small but potent way given the proper opportunities: "You get a seed, and you know and feel out different ways, the best way to react, how to handle different things."

At the same time these individuals developed child-centered goals in light of their own growing up, comments show that harmony with adult associates also is important: "Most of the people I work with are very dedicated to their job or the big field of early childhood development." "I like to work with people who respect others and are involved with the kids, their education." "I like the people I work with, caring people, nice people, outgoing, not afraid

to tell me how they feel about something." Participants agreed that child care work provided opportunities for a relatively happy family-like environment.

A few of the participants additionally noted that having enough resources for varied activities, opportunities to work at their own pace, and an atmosphere of honesty and enthusiasm contributed to the sense of harmony at work. The participants who had children liked the fact that their field of study provided knowledge and ideas for parenting, suggesting a harmonious fit of work and family.

The Surprising Lack of Perceived Tension

Members of this sample seemed to find very little negative tension or dissatisfaction with their field of work. Four participants could not even think of one thing they disliked about child care. The others came up with only very minor things during the interview. Full time students at the vocational-technical school did not particularly love the "book work" in contrast to the work in the on-site child care center. Others somewhat laughingly noted that they didn't like changing diapers, "kids biting my fingers," staff conflicts or gossip, or working with those few "bad apples" and "lazy" co-workers. Such tensions did not disrupt the more fervent personal sense of harmony with the career area. As one participant noted, "You just have to learn to work around them."

The majority of participants were "thrown off" by a question regarding their talents and skills. The first response was that they didn't have any, indicating that they accept the unfortunate presumptions that "anyone can do child care work" and that it does not demand talent or special knowledge. However, with prodding they eventually described a variety of special personal qualities such as ability to communicate, come up with creative new ideas, play with the children, get along with others, empathize with children, teach skills, remain orderly, and ensure safety. They considered their abilities to be patient, understanding, fun loving, imaginative, and flexible as necessary for success. An important "hidden" tension was revealed in the finding that the participants seemed to sell their talents short while believing in the importance of the child care worker role.

No participant in this study expressed concern about tensions such as burnout or stress, and only three respondents mentioned dissatisfaction with the low pay and status. Bette expected that "some parents may not like you telling them what is going on with their kids," indicating that she suspected parents might question her status and professional judgment. Faye insisted, "Working with young children is much more important than our society lets on." And Hanna similarly noticed "people treat you like you are not doing anything," but she had stopped letting that bother her because "it is something I want to do and it doesn't matter what anybody says." Perhaps the general lack of outrage or even attention concerning tensions such as poor wages and low respect is due to the relative youth and short-term span of experience of the students.

As a testament to their commitment, these respondents did not allow society's misconception to damper their enthusiasm or certainty of the value of their work. However, it is important to note that they did not express any sentiment toward activism or plan to enter the political process to attempt to improve societal attitudes and structures that condition child care work.

Discussion

Some of the most interesting findings in this study relate to the students' heavy focus on the importance of harmony and inattention to the political and economic tensions that condition child care work (Tuominen, 2000; Wolf & Walsh, 1998). Given the love of "just being with the kids," it is not surprising that participants would focus their vocational interests in terms of harmony with the heart. They combined many elements in their daily experiences--a sense of fun, enthusiasm, opportunity to learn more about children, opportunity to gain skills in teaching essential knowledge and values, teamwork with coworkers, and personal characteristics such as organization and imagination--into a unified sense of a vocation. Moreover, the career area harmonized with their own childhood memories as well as a larger sense of mission to make a real difference in the future of each child and society.

Occupational education for child care work traditionally has been structured to develop employability skills such as problem solving, technical knowledge, and cooperation (Stout & Martin, 1996; Villafaña, 1995). Such lessons seem to resonate with students who already love children and are eager to practice skills that will enable them to work successfully with children, parents, and administrators of centers. Judging from student satisfaction, it would seem that occupational education is very successful in preparing students to harmonize knowledge and skill with their future tasks and responsibilities.

Although these participants did dislike a few aspects of child care such as lazy coworkers and low status, these tensions did not threaten the powerful sense of harmony with their career area. This is in sharp contrast to child development research that tends to highlight the burnout, stress, low wages, and low status prevalent among child care workers (Boyd & Schneider, 1997: Lindsay & Lindsay, 1987; Manlove, 1993; McMullen & Krantz, 1988; Modigliani, 1986). One possible explanation is that problems such as inaccurate public perception, stress, and low pay are remote from the daily horizon of students and beginning workers. Young students likely would not experience tensions such as trying to save for retirement on minimal wages; they would not have the longevity to experience burnout.

The fact that many students in this study did not immediately claim special abilities, gifts, or talents--while insisting their work was valuable to society--indicates an inadvertent acceptance of the current ideology that caring work is not "real" work that requires a special set of skills (Modigliani, 1986). Moreover, they did not seem to question tensions within the societal and economic power relations that affect child care workers (Tuominen, 2000; Wolf & Walsh, 1998). None of the students in this study claimed a voice in decision making on issues that affect them, planned on engaging in public policy issues, or expressed a desire to work in the political context to change existing ideological and reward systems. This lack of political interest possibly could be attributed to the workers' inexperience and youth, a personality type attracted to working with children and not activists, or a combination of these and other factors.

As Dippo (1998) argues, vocational education should prepare students for a larger "sustainability" perspective that pays attention to "the constructive and critical tension" (p. 328) between global issues and local problems, between economic equity and social justice. However, this study supports the contention of Eyre and Peterat (1990) that FCS education focuses on individualistic issues over social issues, knowledge acquisition rather than social critique, and coping and management skills rather than social critique.

Implications for Education

The study suggests a number of implications for FCS education programs with a wage earning emphasis on child care services. Family and consumer science educators should continue to draw upon qualities of harmony in career guidance, helping students identify where they gain vocational satisfaction, and how they might carve a personal niche within a child care career. Shields (1993) notes that first impressions of a field of work are extremely important, and orientation should increase self-awareness, practical understanding of the responsibilities, and a sense of the possibilities. Teachers should orient students to the tensions that may come with child care careers later, but they should also introduce reflective and critical-thinking strategies regarding the multiple challenges that occur over the long-term development of a child care career.

Discussions and debates could help students clarify goals, point out problems and issues in their communities, identify tensions and underlying causes, assess the merits of alternative perspectives, and suggest solutions. Students should be taught to probe the deeper issues and questions that Eyre and Peterat (1990) argue are typically neglected: Why does society not place higher value on child care? Who sets standards such as salary structure and state regulations that affect workers, and on what basis are decisions made? Who benefits, and who sacrifices? The students in this study very much enjoyed experiences in school-based or community child care centers, and they believed they were able to develop skills in working in the complex settings of child care. Such work experiences should be strengthened so that students "read their lived realities as text" (Samper & Lakes, 1994, p. 102) and critically assess the harmony and tension within their work sites (Simon & Dippo, 1987).

One of the primary challenges in occupational education for child care services seems to be the need to help students gain a sense of active contribution in determining policies that affect them. If "an emancipatory vocational education would not merely provide access to the culture of work but would empower students for the possibility of change" (Rehm, 1989, p. 116), FCS educators should help students reflectively critique the harmony and tension between child care work and the larger social/political environment. Students could participate in projects that take them into the community to express their voice and actively engage in resolving issues of concern. For example, they might participate in public hearings when child care issues are at stake, write letters to the editors of local newspapers, advocate beneficial policies, participate in online discussions about national child care issues, and provide community educational programs regarding issues that affect workers and children.

Implications for Research

A framework of harmony and tension also suggests useful directions for research. Because action research can "contribute to wisdom of practice as we work with people in practical actions which impact their daily lives" (Peterat, 1997, p. 122), it should be used to study educational programs that have a critical stance. A study of educational sites that are struggling to address tensions of child care would help researchers focus on the processes of trying to improve existing reward systems and conditions so they are more in harmony with the social value of child care (Tuominen, 2000).

Interpretive studies are needed to deepen understanding about the motives, practices, values, feelings, and outcomes that play out (Daines, 1989) within a framework of harmony and tension in child care settings. Students could be studied longitudinally for how a sense of harmony changes from schooling to work contexts and how they address tensions over time. A

study of the nature of becoming a reflective participant who is active in the political process of trying to improve conditions within the child care profession would be valuable.

Critical studies should be undertaken to "facilitate a free society where people think and talk together about moral questions that affect society" (Coomer, 1989, p. 168). Child care work and educational environments must be critically assessed for how tensions are identified and addressed within a complex web of power relationships, ideologies, and economic conditions (Strom & Plihal, 1989). Critical studies are needed to explore how child care workers can identify and overcome repressive factors that decrease personal freedom and control of their own situations.

Conclusion

Family and consumer sciences educators are obligated to prepare occupational child care students for an aesthetically meaningful sense of work. This includes helping students harmonize their skills and dreams with the realities of working with children. It also includes helping students critique the harmony and tension both within their particular child care environment and the larger social, political, and economic context. If we are successful, students will achieve personal harmony with their day-to-day work and will embrace the challenge to transform the tensions that affect them.

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APPENDIX

Respondent Characteristics

Pseudonym	Age	Ethnicity	Educational Status
Ally	20	African American	Vocational-Technical Child Care Program, Full-time
Bette	18	Caucasian	High School Student Enrolled in Vocational Child Care Program, Half-day
Chris	19	African American	Vocational-Technical Child Care Program, Full-time
Darcy	20	Caucasian	Vocational-Technical Child Care Program, Full-time
Errol	20	West Indian	A. A. degree in Elementary Education
Faye	22	West Indian	A. A. degree in Early Childhood Education
Gail	24	Hispanic	A. A. degree in Child Development
Hanna	30	African American	Recently acquired CDA credential. Workshops in conflict resolution, professionalism, etc.
Irene	22	Caucasian	Working on A. A. degree in Child Development at local community college.

A REVIEW OF PROBLEM-BASED LEARNING

Janet D. Ward, St. Stephens High School
Cheryl L. Lee, Appalachian State University

Research on methods of organizing and presenting curriculum reveals a need for change if society's workforce is to be appropriately educated. Historical and theoretical precedence points to the instructional method of problem-based learning (PBL) as an effective alternative. An examination of recent implementation of PBL suggests advantages and disadvantages to this method of instruction and barriers to implementation, which include changes in the teacher's role and adjustments required for assessment.

Parents, politicians, business leaders, and educators are in agreement that change is needed in the American public school system, but what and how to change is not easily resolved (Albion & Gibson, 2000; Elam, Rose, & Gallup, 1994; Sage, 2000; Smith, 1995). Some advocate going "back to basics"; however, what employers are now considering as "basic" has changed. Employers cite the need for workers with excellent communication skills, the ability to work collaboratively to solve problems, an understanding of statistics, and the ability to creatively solve ill-defined problems (Meier, Hovde, & Meier, 1996). Workers should also be able to absorb new ideas, adapt to change, cope with ambiguity, perceive patterns, work cooperatively, and use reasoning skills to solve conventional problems. Few of these skills are evidenced in a classroom which contains rows of students memorizing facts for regurgitation.

The concept of teaching segmented disciplines versus integrated or interdisciplinary curricula is in the center of the debate on what and how to improve instruction. Segmented disciplines divide knowledge into useful, organized hierarchies of facts and theories that direct research and bring order to our understanding (Tchudi & Lafer, 1996). The disciplines are the long established status quo; however, one of their major weaknesses is that they sometimes limit vision such that a scholar becomes an expert in his or her unique corner of the universe, but is unable to speak to others. There is concern that schools are not educating scientists who can recognize how their knowledge and expertise relates to the big picture. Few problems facing our society are aligned within disciplines. Solving environmental pollution, resource depletion, and world hunger requires economical, mathematical, physical, biological, chemical, medical, political, and sociological expertise. According to Meier et al. (1996), students taught within the lecture-based disciplinary system typically have not been able to solve problems that require them to make connections and use relationships between concepts and content.

In contrast, interdisciplinary teaching starts with a topic, theme, problem, or project that requires active student participation and knowledge of multiple disciplines in order to reach a resolution (Dabbagh, Jonassen, & Yueh, 2000; Gordon, Rogers, & Comfort, 2001; Meier et al., 1996; Sage, 2000; Tchudi & Lafer, 1996). Interdisciplinary teaching uses relevant applications that motivate students to search for needed facts. This instructional method encourages students to look for new solutions to relevant problems using available knowledge and resources. The process expands students' critical thinking and problem-solving skills while enhancing their creative capabilities. Interdisciplinary teaching is appropriate for both vocational subjects, including family and consumer sciences, and traditional academic subjects.

Historical and Theoretical Precedence

Interdisciplinary learning is not an untried, new educational technique. It has roots in Socratic inquiry and centuries-old apprenticeship training. Socrates did not lecture as much as he moderated and directed questioning. It can be observed in The Republic by Plato (360 B.C.E./1960) that Socrates guided his students through inquiry to answer their own questions, search out answers to problems, and relate their knowledge to life applications.

Apprenticeships were effective because an expert guided the apprentice through hands-on problem solving in which knowledge and skills were taught and practiced as needed. Boud & Feletti (1991) cite Joseph Payne's description of the teacher's role, from his Lectures on Science and Art of Education published in 1883, as a guide, director, or superintendent of the process through which the pupil teaches himself.

Historically knowledge was acquired by word of mouth from one generation to the next. Eventually the printing press and books made knowledge more accessible. As a result of technological advances in the 20th century, knowledge acquisition and transmission have seen a logarithmic increase. The information available is so plentiful and changing so rapidly that most individuals will encounter only a small portion of it. If students are going to be capable of making informed decisions that result in reasonable actions, they will need more than facts. Students need to recognize what information is needed, have the knowledge and skill necessary to acquire this information, and the ability to use that knowledge appropriately to solve the problems they face (Dabbagh et al., 2000; Tchudi & Lafer, 1996). Disciplinary studies, by themselves, are inadequate to meet these needs. Since it is not possible to learn all the facts from even one discipline, it is critical to learn the processes of acquiring knowledge within the discipline. Once the process is mastered, the facts are accessible when relevant to life's problems and situations.

An examination of students' perceptions of positive and negative learning experiences provides some insight regarding instructional methods that have the potential to develop these process skills. Carlisle (1985) described a pre-training survey that generated a list of what trainees perceived as making past learning experiences either positive or negative overall. Negative learning experiences were characterized by the instructor's lecturing with a monotone delivery, testing on material not covered, teaching incorrect information, failing to provide assistance to trainees, failing to connect concepts to familiar things, and excluding trainees from setting learning goals. The following were related to positive learning experiences: (a) a positive atmosphere, (b) group involvement, (c) goals set by trainees, (d) concepts relevant to familiar ideas, (e) application of what was learned, (f) a motivation to learn, (g) and mutual respect between the instructor and trainees. In this survey, most of the characteristics of positive learning experiences parallel interdisciplinary instruction. Equally evident are the parallels between negative experiences and lecture-oriented instruction.

Interdisciplinary Education through Problem-Based Instruction

Studies of interdisciplinary education repeatedly emphasize the use of themes, projects, or problems (Dabbagh et al., 2000; Gordon et al., 2001; Meier et al., 1996; Sage, 2000; Tchudi & Lafer, 1996). A central stimulus that triggers the need to know and the direction of the learning is key. Some contend that students have experienced hands-on inquiry through math word problems and science experiments. Csikszentimihalyi and Getzel (1971) challenged this notion when they described two categories of problems: presented and discovered. Most of traditional problem solving has involved presented problems. These are problems in which the method and

the solution are already known, and the problem solver needs only to adopt the "correct" procedural steps to arrive at the expected solution. However, the development of a problem and how to resolve it are often more critical than its solution, which is frequently a matter of mathematical or experimental skill. To ask new questions, to see new possibilities, and to look at old problems from a new perspective require creativity. Unlike the presented problem, a discovered problem is a situation in which the problem itself has not been formulated but must be identified, and a method for reaching a solution and even the nature of a satisfactory solution are yet unknown.

Problem-based instruction was initially designed for graduate medical school programs when instructors noted that young physicians were graduating with a wealth of information but without the necessary problem solving skills to use that information wisely (Gallagher, Stepien, Sher, & Workman, 1995). In 1969, a medical school was founded in Ontario with a unique educational philosophy, the "McMaster philosophy," which has evolved into the educational strategy known as problem-based learning (PBL) (Bayard, 1994). Gallagher et al. noted three features that set the parameters of the PBL educational strategy: initiating learning with a problem, making exclusive use of ill-structured problems, and using the instructor as a metacognitive coach.

The central concept to PBL is that students will learn content as effectively as through lecture by attempting to solve realistic problems. Problem-based learning has two distinct goals: to learn a required set of competencies or objectives and to develop problem-solving skills that are necessary for lifelong learning (Engel, 1991). Because problems are central to this instruction format, their development is a crucial component of a PBL program. Tchudi and Lafer (1996) describe good problems as having the following characteristics. They (a) confuse just enough to provoke curiosity and provide a reason for learning, (b) provoke thought on new things in new ways, (c) help students discover what they do and do not know, (d) ensure that students reach beyond what they know, (e) create a need and desire for skill and knowledge, (f) lead to understanding the relationship of a procedure to the problem which makes the procedure sensible, (g) naturally lead to interdisciplinary inquiry, (h) build strong communities of learners; and (i) lead to cooperation in the strongest sense that is based on the will and desire to succeed rather than a set of dictated behaviors that are advocated for the sake of politeness. Tchudi & Lafer also note that a quality problem should have a visible product or presentation that is viewed by an outside audience. Most of the production of this product or presentation should be completed during class time and be a class-wide effort or a class collection of smaller projects. This further encourages the development of collaboration and teamwork skills.

An effective means of defining PBL is to outline the steps students take in their learning. Stepien, Gallagher, and Workman (1993) provide the following summary:

> Problem-based learning is apprenticeship for real-life problem solving.…students find a situation with undefined problems, incomplete information, and unasked questions. The scenarios presented to the students demand problem solving the way we find it in life: defining and detailing issues, creating hypotheses, searching for and then scanning data, refining hypotheses with the help of the collected data, conducting empirical experiments or other research, developing solutions that fit the conditions of the problem and evaluating and/or justifying their solutions so there is reason to expect conditions will improve (p. 342).

In theory, PBL appears to answer many concerns regarding educational methods. Recent studies in PBL applications justify further research in this field.

Recent Applications

The most extensive application of PBL in the public education arena has been in science instruction. Gallagher et al. (1995) point out that PBL can and should include experimentation as a tool for solving problems. They used a framework that emphasized that students plan their own experimentation by asking a series of questions. The questions suggested by Gallagher et al. are what do I know, what do I need to know, what do I need to learn, and how do I measure or describe the results. During the design phase of the first problem-based experiment, students develop a protocol that lists every step in the experiment. This protocol, which looks a lot like the standard lab plan, becomes a metacognitive guide for students to use in developing future experiments. This successful application of experimentation adds support to the premise that PBL can promote traditional content knowledge such as using a lab plan through nontraditional methods.

Another study with eighth graders shows the validity of using unsolved, relevant problems with adolescents. At a one-week Illinois Mathematics and Science Academy summer program, students are taken to a nuclear waste burial site to solve the problem of how to safely dispose of thorium waste. In the process of problem solving, students explore a variety of disciplines and expand their knowledge bases through increasingly self-directed study and collaboration with their classmates (Stepien & Gallagher, 1993). This study with gifted eighth graders indicates that PBL, which has been predominantly reserved for adult learners, is applicable to the high school student.

Katz (1996) at St. Louis College of Pharmacy began a longitudinal study to search for reasons behind the high failure rate in organic chemistry and to develop an alternative method of instruction that promoted success. Research of teaching methodologies led Katz to student-directed learning (SDL). Student-directed learning has course content set up around "big ideas" or themes. Lectures are changed to a continuous dialog between teachers and students using a "reverse Socratic" method or student-initiated questioning. Although this research is not true PBL, it contains many of the characteristics and principles of PBL. Four years of cyclical evaluation and revision brought impressive changes in student success as measured by the ACS exam (standardized exit test used by the chemistry department) scores and the ratio of students repeating the course (Katz).

Researchers in a longitudinal study of PBL at Illinois Mathematics and Science Academy have telephoned high school graduates since 1990 to gain information on which classes they perceived as being the most helpful in problem solving, critical thinking, and ethical decision making. The graduates clearly and overwhelmingly favored the American Studies and Science and Society and the Future. These courses were taught using PBL (Stepien et al., 1993). Science and Society and the Future, a one semester elective, senior course, confronts students with social and ethical questions that evolve from making public policy decisions related to controversial scientific issues.

Dods (1997) investigated the effectiveness of PBL in promoting knowledge acquisition and retention. A total of 30 students from a biochemistry course at the Illinois Mathematics and Science Academy participated. Course content was delivered via PBL, traditional lecture, and a combination of PBL and traditional lecture. Data were gathered using a pre- and post-course self-evaluation of student understanding and a measure of depth of understanding. It was found

that content coverage was promoted by lecture, but that PBL was more effective than both traditional lecture and a combination of PBL and traditional lecture in promoting comprehensive understanding of important biochemical content.

Published research in PBL in family and consumer sciences has so far been limited to one study in dietetics (Bayard, 1994) and one in food production (Lieux & Duch, 1995). Bayard conducted a short study using two sets of problems each for the study of infant care and elderly care with undergraduate dietetic students (UDS). These units were interspersed with the majority of the semester course work using traditional lecture settings. A second part of the study dealt with case problems for dietetic interns (DI). The DI showed greater gains and more willingness to repeat the experience than the UDS. These results may be partially attributed to the research design that did not provide the UDS with time to adjust to PBL and the resentment to the non-volunteer situation. This research did affirm the effectiveness of PBL for the adult learner.

Lieux and Duch (1995) set up a control (lecture-based instruction) and treatment (PBL) class of quantity food production and service. Each class maintained the same presentation method for an entire semester. Although at the time of the report statistical analysis had not been completed, there appeared to be no significant differences in content acquisition between the lecture-based instruction and the PBL classes. An outcome that supports PBL for the college climate was attendance. The control class had an average attendance of 17.5 sessions out of 26 and never exceeded 80% attendance as a whole. The PBL class attendance rate was never lower than 80%.

Advantages and Disadvantages of Problem-Based Instruction

The use of PBL in various settings has revealed both advantages and disadvantages. Gallagher et al. (1995) view PBL as mimicking real-life situations and being inherently interdisciplinary, which allows the student to perceive how different disciplines interact when problem solving. Through the careful process of coaching and modeling, teachers empower students to become self-directed and independent learners, capable of approaching the kinds of complex problems they will face as professionals.

Problem-based learning students may not perform as well on multiple-choice tests as students taught by lecture-based instruction; however, follow-up studies completed by Norman and Schmidt (1992) reveal better long-term knowledge retention for PBL students. The apparent improvement in retention may be connected to the way learning occurs in PBL. Problem-based learning has the potential to structure knowledge so that acquisition and recall are optimized, students develop self-directed learning skills, and there is an increase in the motivation for learning (Bayard, 1994).

Boud and Feletti (1991) warn that a major problem with evaluating PBL programs is that valid acceptable measures of the outcomes of PBL curricula are hard to find or difficult to interpret. Problem-based learning is also difficult to quickly assess and analyze through testing. Multiple-choice questions, the preferred mode for standardized testing, are not readily adapted to measuring the process skills needed for critical thinking. Structured short-answer questions have the ability to measure problem-solving abilities as well as knowledge recall, but are more time consuming to develop and score (Bayard, 1994).

Time spent in study outside of class is a factor of concern to both instructors and students alike. Whether PBL is an advantage or disadvantage depends on the perspective of the individual. When time spent out of class was analyzed in the college setting, students in PBL

spent more time out of class studying and made more use of non-traditional textbook sources for their information (Bayard, 1994). Research into study time for the high school and elementary student has not been examined.

Barriers to Problem-Based Learning

To effectively implement PBL, teachers must adopt new roles that are frequently very different from those of their past. In lecture-based instruction, the teacher is in control and is the "expert" dispensing knowledge. In PBL, the teacher selects the problem, presents it to the students, and then provides direction for student research and inquiry. The teacher functions as a facilitator, and the student controls the problem-solving process. For many teachers, such a change is untenable. One teacher assisting in research reported by Boud and Feletti (1991) wrote on the exit evaluation, "I can't handle this. I want to be in total control and PBL doesn't allow that" (p. 132). These teachers flounder without the control and "power" typical in lecture-based classes.

Another factor inhibiting change was noted by Albion and Gibson (2000) and Novak (1990) in teacher education programs. Most of these programs still rely heavily on rote learning and traditional lecture formats. It is difficult to expect teachers to adopt learning methodologies that they have not experienced personally or through their teacher education programs. With many administrators, curriculum developers, and teachers lacking experience in interdisciplinary education, barriers to broad scale change can become insurmountable.

Another barrier to PBL is the lack of prepared materials for classroom instruction. Few training materials are available. Present curriculum guides and textbooks do not contain the variety of sample problems or assessment tools needed to support this methodology on a broad scale. The philosophies supporting PBL are well established, but the "how tos" are in short supply (Burruss, 1999; Gallagher et al., 1995). Few teachers have the time or the motivation to prepare all new materials for classes.

Not only are ill-structured problems unavailable for much of the public school curricula, but most accountability assessment that is presently in use is product driven and knowledge based. Teachers' and students' performances are examined in light of standardized testing that does not address critical thinking process skills. Meier et al. (1996) report that with many time constraints and administrative pressures to improve test scores, many teachers will not believe they can justify the time necessary for PBL.

The Teacher's New Role

The literature on PBL indicates the importance of the teacher in the success of any PBL program. Problem-based learning requires changes in the way teachers plan instruction, direct learning, transmit knowledge, oversee instruction, and assess learning (Gordon et al., 2001; Maxwell, Bellisimo, & Mergendoller, 2001; Torp & Sage, 1998). Teachers facilitate the development of projects and act as expert consultants. They work to ensure that projects will indeed create a need for disciplinary knowledge and skill. The disciplines are taught as a response to a need created by ill-structured problems. Research indicates that students take advantage of the teachings when those teachings will help solve the problems generated by the project at hand (Boud & Feletti, 1991; Gallagher et al., 1995; Stepien et al., 1993).

A major change that must occur is the teacher's perspective. Teachers' traditional views of problem solving are influenced by their area of content specialization. Because PBL is often interdisciplinary in nature, teachers need to recognize the connections between disciplines and

collaborate with other teachers in developing learning experiences that provide relevant applications of content and skills (Maxwell et al., 2001; Meier et al., 1996). Such collaboration is difficult to accomplish in today's high school environments. Boud and Feletti (1991) found that another difficulty in schools was lack of support from lecture-based colleagues. Comments such as "my subject requires an expert to pass on knowledge" and " it may be okay for you, but it wouldn't work for me" may have validity depending on the subject and the constraints under which the faculty have to operate. Problem-based learning will require a paradigm shift in the way teachers think about learning and functioning within their educational systems.

Teachers must not only change the way they think about instruction, but also how they approach instruction. What makes problems good are what the teachers do with them or what they encourage students to do with them (Tchudi & Lafer, 1996). Teachers need to act as models, thinking aloud with the students and practicing behavior they want to instill in their students. They use metacognitive questions like, “What 's going on here?”; “What do we need to know more about?”; and “What did we do during the problem that was effective?” They must coax and prompt students to take on responsibility, to encourage independence and then fade into the background and become another colleague on the problem-solving team (Stepien & Gallagher, 1993). Other tasks identified are (a) keeping the learning process moving, (b) making sure that no phase of the learning process is neglected or misdirected, (c) probing the student's knowledge consistently and intently so that gaps in knowledge and reasoning are glaringly evident, (d) keeping all students involved in the learning process, and (e) guiding the group so that excessive stress is diffused while maintaining the challenge to learn without introducing boredom (Bayard, 1994).

Successful implementation is not easy. Teachers will need self-knowledge, commitment, determination, teamwork skills, and considerable understanding of the learning process to make PBL successful. The lack of training programs, curriculum materials, and rigid scheduling in the high school environment will increase demands on any teacher trying to implement PBL in his/her classroom.

Assessing Learning with Problem-based Learning

Not only is the appearance of PBL different, but assessment must also change. Traditional letter grades and right or wrong answers do not fit, especially when students are presented with problems today's "experts" have not been able to satisfactorily resolve. Most assessment materials that are available are knowledge based. The ill-defined problems of PBL do not have answers that can be written in an answer key. It is difficult to develop multiple-choice questions that will measure creativity, critical thinking, and teamwork skills.

If PBL can meet the demands of the information age, educators will need to replace product-oriented assessment techniques with valid assessments for process-oriented education (Tchudi & Lafer, 1996). Boud and Feletti (1991), in their meta-analysis, point to the difficulties with testing knowledge as isolated facts out of context. Tchudi and Lafer describe traditional assessment as a game that engages the student in guessing what the teacher wants rather than demonstrating the best they can do. If PBL changes the game and learning is to be seen as relevant to life, new methods are needed for the teacher to be able to assess student progress. The emphasis should be on being able to locate the necessary information to solve the problem rather than memorizing facts (Gordon et al., 2001; Maxwell et al., 2001).

One potential assessment has been developed by the Illinois State University's Center for Mathematics, Science, and Technology in its creation of an integrated math, science, and

technology curriculum for the seventh grade (Meier et al., 1996). The goal was to develop a single problem-solving model that could be used across the curriculum. Discipline models were studied for their commonalities, and a new model, DAPIC, was developed. The letters stand for define, assess, plan, implement and communicate. DAPIC accentuates the fact that problem solving is not always a linear or circular process; instead one may need to back up or start over when plans run into unforeseen problems. The use of an interdisciplinary problem-solving model provides a framework for student thinking and can assist students in making connections between disciplines. This metacognitive tool meets some of the assessment needs of PBL.

Another appropriate PBL assessment strategy is students' documentation of their intellectual journeys (Gallagher et al., 1995; Stepien et al., 1993; Tchudi & Lafer, 1996). Students can prepare a portfolio assessment that includes notes, in-process commentaries, articles they have read, and discussions or monologues of the evolution of their ideas preparatory to formulating and reporting their conclusions. Teachers can facilitate students' creative problem solving by helping students organize their thoughts under four headings: (a) what do we know?, (b) what do we need to know?, (c) what do you think may be an answer [hypothesis]?, and (d) how do we find out? (Stepien & Gallagher, 1993; Gallagher et al., 1995). Revisiting these questions can help students maintain direction, identify progress, and visualize new avenues of pursuit.

Gallagher et al. (1995) found that a lab notebook, just like scientists use, provided a means to record observations, store data, record proposed hypothesis, and list flashes of genius, i.e., ideas that need to be recalled for later consideration. This lab notebook idea is easily expanded into a problem log whose format can be utilized in problems that are less science based. The problem log is a journal that records ideas, plans, strategies, and progress. It provides a written record of a student's train of thought. Specific log assignments can be given to help teachers track the thinking process and document student participation.

Another potential assessment tool was developed during a longitudinal study of the changes in conceptual understanding of science over a 12-year period at Cornell University. Concept mapping (CM) is a metacognitive tool that was developed for this study to show changes in learning (Novak, 1990). A study completed in Nigeria found that CM as compared to traditional lecture in science classes increased achievement scores and lowered student anxiety toward science (Jegede, Alaiyemola, & Okebukola, 1990). Concept mapping also aided teachers in identifying errors in student learning (Novak). The relevance of this tool is in the need for learning to be "connected" to known concepts.

Another application for CM that is worthy of note is its use in curriculum development. Novak (1990) reports work with fourth- through eighth-grade teachers using CM as a heuristic for curriculum development. As teachers prepared concept maps of curriculum, they were able to improve the hierarchical arrangement of content with increased detail and greater integration of concepts. Concept mapping can not only provide a useful means of assessing knowledge acquisition of the students, but it can also aid teachers in developing meaningful ill-structured problems for PBL.

Both authentic assessment and rubrics were used to assess PBL in a high school family and consumer sciences nutrition class (Ward, 1998). At the beginning of each unit of study, students were presented with "problems." For example, at the beginning of the unit related to fruits, students received the following problem.

Working in groups of three or four, identify fruit-based recipes that are nutritious, easy to prepare, and appealing to teens.

The problem was first discussed by the teacher and students. Resources, timelines, and grading expectations were presented, along with rubrics that informed students of assessment guidelines. For this problem, students were to select one type of fruit and then research its nutritional value, storage requirements, and relevant preparation techniques. They were then to determine three recipes using that particular fruit, prepare the recipes, and conduct taste tests among class members. Research and taste test results were to be compiled into a computer-generated class presentation. Students were also expected to maintain a journal of their progress. Authentic assessment was utilized as students' products were evaluated using appropriate rubrics.

Implications for Family and Consumer Sciences Educators and Researchers

This review of research has revealed numerous examples of analyses of metacognitive assessment tools, PBL for the adult learner, and limited trials of PBL in public education. There is evidence of the validity of PBL in isolated populations. What is lacking is extensive documentation of the effectiveness of PBL in varied age and situational environs, including family and consumer sciences. Continued research and development of ill-structured problems, as well as adequate, valid assessment tools, are needed before PBL can be more readily implemented.

Many of the studies conducted have been for limited periods of time. Those studies that have reaped the most significant results have been long-term or longitudinal studies (Jegede et al., 1990; Katz, 1996; Meier et al., 1996; Novak, 1990). They have involved cyclical analysis and revision of methodologies and assessments. Katz (1996) and Jegede et al. (1990) also refer to the necessity of acclimating students to the new methodologies before significant involvement and improvement is possible. Future PBL research related to family and consumer sciences should consider these insights.

A pure PBL teaching environment is difficult to produce, not only in the family and consumer sciences classroom, but in any classroom. Likewise, some topics and concepts do not lend themselves to this format. However, family and consumer sciences teachers might consider PBL as another effective option for the presentation of subject content. Adding an occasional "problem" to the traditional class will add variety to the classroom learning experiences while maintaining educational integrity. At the same time, the gradual introduction of problems will allow the teacher time to develop new materials and learn new skills without becoming overwhelmed.

Studies found that adolescents enjoyed and valued PBL (Albion & Gibson, 2000; Gordon et al., 2001; Stepien & Gallagher, 1993). Students felt the problem-based approach with its active learning and teamwork made learning relevant and enjoyable. In addition, teachers reported that students' behavior improved when PBL was utilized. With the numerous active learning opportunities in family and consumer sciences, as well as the typically diverse classroom, these findings imply that PBL would offer many benefits to the family and consumer sciences teacher.

As this review of literature indicates, the role of the teacher changes dramatically when using the PBL method of instruction. To be successful, family and consumer sciences teachers will need increased skills in Socratic inquiry, conflict resolution, and classroom management.

They will need to rethink their classroom arrangements, resources, and modes of assessment. They may need to convince reluctant colleagues and administrators to support PBL, to give it a try. But their efforts should be worthwhile as the use of PBL provides students with greater exposure to cooperative learning, teamwork, and critical thinking skills. Family and consumer sciences teachers who use PBL will provide opportunities for students to gain skills deemed critical for the workforce of the future.

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COMPETENCIES IN CLOTHING AND TEXTILES NEEDED BY BEGINNING FAMILY AND CONSUMER SCIENCES TEACHERS

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A committee of 14 family and consumer sciences (FCS) professionals in North Carolina was formed to review and revise the existing FCS education beginning teacher competencies. Competencies related to clothing and textiles were of particular concern as several appeared to be irrelevant for contemporary FCS programs. The author of this article gathered information for the sub-committee that worked to revise the clothing and textiles competencies. The purpose of this article is to describe the methods and results of that particular endeavor.

The National Standards for Family and Consumer Sciences Education encouraged a group of North Carolina family and consumer sciences (FCS) professionals to critically examine current competencies required for beginning FCS teachers in North Carolina. The existing FCS teaching competencies were developed in the 1980s and, therefore, were in need of review and revision. Competencies related to clothing and textiles were of particular concern as several appeared to be irrelevant for contemporary FCS programs. For example, clothing construction skills seemed to be overemphasized at a time when few individuals actually construct their own clothing.

The competencies required for beginning FCS teachers in North Carolina greatly influence the undergraduate FCS education curriculum at the university level. The university curriculum related to clothing and textiles, for example, must enable FCS education majors to gain the skills they need to effectively teach clothing and textiles classes at the secondary level. Since the existing competencies were dated, it was necessary to review them to identify what competencies students presently needed. Input from secondary FCS educators was deemed essential.

A committee of 14 FCS professionals in North Carolina was formed to review and revise the existing FCS education beginning teacher competencies. This committee included FCS state consultants from the Department of Public Instruction, teacher educators from North Carolina universities with FCS programs, and secondary FCS teachers. Sub-committees focused on individual curriculum areas, such as housing and interior design, child development, and foods and nutrition. Various resources were utilized in the review and revision process, including the National FCS Education Standards, national skills standards, North Carolina secondary program of study guides, and university courses of study. The committee met over the course of a year to review and revise the competencies. At the completion of the process, recommendations were made to the State Board of Education for approval of the revised competencies.

The author of this article gathered information for the sub-committee that worked to revise the clothing and textiles competencies. The purpose of this article is to describe the methods and results of that particular endeavor.

Procedures

As noted above, the objectives and competencies included in the North Carolina FCS programs of study (what high school students are to learn in their FCS classes) influence what

FCS teachers must be able to teach and likewise influence the beginning teacher competencies. As a result, the university FCS education curriculum is similarly impacted. A review of related literature indicated that there is not agreement on what content should be included in secondary clothing and textiles classes; specifically the debate concerns the emphasis that should be given to clothing construction skills. Some contend that sewing instruction should be a primary focus of high school clothing and textiles classes, noting the creative benefits and positive outlets it provides (Loker, 1987). Brandes and Garner (1997) also favor emphasis on clothing construction skills, maintaining that the apparel and textile industry represents one of the largest manufacturing employers in the United States with numerous challenging careers which require knowledge of clothing construction. They further note that while expertise in clothing construction may be required for successful employment, many colleges and universities claim there is insufficient time to include a basic clothing construction class in their programs in addition to the advanced technical skills that are required of college graduates. It is, therefore, critical that these basic sewing skills be taught in the high school FCS clothing and textiles classes.

It is contended that changes in society have altered the role of the traditional sewing component in the study of textiles and apparel; therefore, clothing construction skills are less critical (Murphey & Stewart, 1990; Pauley, 1996; Reynolds & Watson, 2000). Murphey and Stewart (1990) interviewed five Virginia high school FCS teachers regarding their use of sewing as part of their clothing and textiles curriculum. They found that four of the five teachers included some type of sewing project as part of their curriculum, although all had decreased the time they allotted for sewing instruction, in part because they recognized that most families in today's society purchase rather than construct their clothes. Pauley (1996) surveyed middle school students, parents, teachers, professionals, and selected other community representatives to determine what they desired in the local FCS middle school curriculum. Parents, professionals, teachers, and community members ranked sewing instruction the least important among 12 curriculum areas, instead indicating that communication, parenting/family, and consumerism skills were the most important concepts to teach.

The FCS Education National Standards include Comprehensive Standard 16.0 for textiles and apparel: "Integrate knowledge, skills, and practices required for careers in textiles and apparel" (National Association of State Administrators of Family and Consumer Sciences, 1998, p. 231). Content standards include the following:

16.1 Analyze career paths within textiles and apparel design industries.
16.2 Evaluate fiber and textiles materials.
16.3 Demonstrate apparel and textiles design skills.
16.4 Demonstrate skills needed to produce, alter, or repair textiles products and apparel.
16.5 Evaluate elements of textiles and apparel merchandising.
16.6 Evaluate the components of customer service.
16.7 Demonstrate general operational procedures required for business profitability and career success. (National Association of State Administrators of Family and Consumer Sciences, 1998).

In their review of Comprehensive Standard 16.0 for textiles and apparel, Reynolds and Watson (2000) note the various changes in the family, workplace, and apparel industry which have ultimately altered the traditional sewing component of textiles and apparel instruction. They contend that it is still necessary to manage clothing, but that clothing construction skills are less important. Therefore, the National FCS Education Standards for textiles and apparel focus

on managing family clothing resources and preparing students for careers in the industry. Only one of the seven content standards relates directly to clothing construction, and Reynolds and Watson say that standard should focus on the manufacturing/industry level rather than home sewing.

In addition to the literature review, it was considered desirable to obtain input from secondary FCS educators regarding the beginning teacher competencies for FCS education. What knowledge and skills related to clothing and textiles did practicing FCS teachers find essential? To obtain this information, a survey instrument was developed and mailed to 300 randomly selected North Carolina FCS teachers. The survey listed the current North Carolina teaching competencies related to clothing and textiles which were required for beginning FCS teachers and requested that the teachers rate the importance of each competency. Teachers were also asked to list other competencies related to clothing and textiles that they felt were needed by today's beginning FCS teachers. Demographic information was also collected. Usable questionnaires were received by 140 teachers; no follow-up surveys were sent. The 140 teachers comprised the sample for this study.

Findings

Almost all (138) of these high school FCS teachers were female, and the majority were in their 40s (47.1%) and 50s (26.4%). Approximately two-thirds (62.9%) held bachelor's degrees, while about one-third (36.4%) had completed master's degrees. Teaching experience varied from 0-5 years (15.8%) to 6-15 years (30.9%) and 16-25 years (35.3%); 18% possessed over 25 years of teaching experience. Using a Likert scale, teachers were asked to assess the importance of the teaching competencies related to clothing and textiles by rating each from "1" (not important) to "5" (extremely important). The mean value of each competency is listed below and in descending order.

- Perform basic skills necessary to use and alter patterns, construct and fit simple garments, and make simple repairs and alterations (4.60)
- Choose techniques and sequences of fabric preparation, cutting and marking of pattern pieces, construction, and pressing that are compatible with fabric and garment design (4.56)
- Assess ready-made and/or constructed garments for quality of construction (4.52)
- Demonstrate ability to select and use equipment for the construction and maintenance of personal and family clothing/apparel (4.51)
- Use management techniques in clothing construction (4.36)
- Define criteria to use in the acquisition and care of sewing equipment (4.16)
- Evaluate the properties and characteristics of textiles in relation to anticipated use and care (4.08)
- Apply art elements and principles of design in the acquisition and use of apparel and textile products (3.99)
- Evaluate the trade-offs among time, money, and aesthetic values in decisions to make, repair, alter, and recycle garments and other textile products (3.98)
- Identify alternative means of acquiring, using, and caring for clothing/apparel and textile products in relation to values, defined goals, life styles, and available resources (3.93)

- Analyze economic factors which influence market choices among textiles products and male/female clothing including patterns of production, distribution, and consumption (3.65)
- Analyze the cultural, social, and psychological factors that influence the acquisition and use of clothing/apparel and textile products (3.57)
- Evaluate the physical aspects of clothing/apparel and textile products that contribute to the protective environment of persons (3.46)

Discussion, Actions, and Implications

These secondary FCS teachers rated all the original teaching competencies related to clothing and textiles as relatively important; however, they rated those related to clothing construction the highest. In open-ended responses, teachers indicated the following competencies should be added: (a) skills in sewing machine repair, (b) advanced construction techniques, (c) serger operation, and (d) computer-aided design, as well as awareness of careers in the clothing and textiles industry.

The clothing and textiles sub-committee considered the review of literature and survey results, along with several other resources (including the National Standards for FCS Education), as they reviewed and recommended changes to the existing competencies related to clothing and textiles. There appeared to be some discrepancy between the national standards and the survey results as to the emphasis that clothing construction should receive in the curriculum and, therefore, in the beginning teacher competencies. While the standards seemed to advocate less emphasis on clothing construction skills, the secondary FCS teachers indicated that clothing construction skills were among the most important skills to be gained in the study of clothing and textiles. When this discrepancy was brought before the full curriculum revision committee, the majority of the committee members likewise felt that clothing construction skills were an important component of the study of clothing and textiles. It was pointed out that the Clothing Design secondary course was one of the most frequently offered FCS courses in the state, and that a major part of the course involved clothing construction skills. In order to be prepared to teach that course, a beginning teacher would have to possess adequate skills in clothing construction. As a result, clothing construction skills were retained as a part of the beginning teacher competencies for North Carolina FCS teachers. To provide for the achievement of those skills, North Carolina FCS education university programs typically require students to complete a clothing construction course.

The revised beginning teacher competencies related to clothing and textiles are listed below.

- Develop an appreciation for the cultural and aesthetic aspects of textiles, apparel, and fashion
- Assess apparel decisions in terms of value, functionality, and appearance
- Apply elements and principles of design in the use of apparel and textile products
- Select, care for, repair, and redesign textile products to meet individual and family needs
- Perform basic skills necessary to use and alter patterns, construct and fit simple garments, and make simple repairs and alterations
- Evaluate fibers, fabrics, design concepts, and principles of construction in textile products
- Identify clothing and textiles industry standards and technology

- Assess the influence of technology on apparel and textile products
- Explore career opportunities in textiles, apparel, and fashion

These revised beginning teacher competencies for clothing and textiles (along with those from the other FCS education areas, e.g. foods and nutrition, housing and interior design, family relationships, etc.) were recommended to the State Board of Education and were ultimately approved. Family and consumer science teacher educators had 1 year to revise their university FCS education programs and bring them in compliance with the new guidelines. Family and consumer science education majors from North Carolina universities are now accountable for achieving these revised competencies, and FCS teacher educators are responsible for ensuring that opportunities for that achievement are provided.

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VARIABLES RELATED TO ATTITUDES TOWARD DOMESTIC VIOLENCE AND USE OF REASONING, VERBAL AGGRESSION, AND VIOLENT CONFLICT TACTICS IN HIGH SCHOOL STUDENTS

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It is estimated that 20 to 30% of adolescents experience dating violence. Identifying variables that are related to dating violence could help in reducing the rates of this abuse. This study investigated how gender, self-esteem, attitudes towards cohabitation, family openness, parents' annual income, and race were related to attitude towards dating violence, and use of reasoning, verbal aggression, and violent acts. The 122 participants in this study were high school students from California. Each completed a detailed questionnaire. Demographic information, along with scores for self-esteem, attitude toward cohabitation, and family openness, was used in a step-wise multiple regression to assess their relationships with attitudes about dating violence; and use of reasoning, verbal aggression, and violent acts in resolving conflicts with dating partners. The results of this study revealed that higher scores of family openness were related to more use of reasoning in dating conflicts verses more violent tactics. Also, low scores on self-esteem were related to high amounts of verbal aggression. Implications for family and consumer sciences educators are also discussed.

While the area of domestic violence has been at the forefront of study since the 1970s, more recently there has been an interest in understanding the causes of dating violence. Estimates by experts are that 20 to 30% of teenagers experience dating violence (Berry, 1995; Levy & Giggans, 1995). Dating violence many times does not cause the relationship to end, and it may continue into marriage. Simons, Lin, and Gordon (1998) and Gelles and Cornell (1985) found that often the patterns of domestic violence are established before the marriage. In a study by O'Leary, Arias, Rosenbaum, and Barling (1985), the researchers found that approximately one third of the participants who experienced dating violence later went on to marry someone that had abused them during dating.

O'Keefe (1997) called for the study of specific factors affecting the adolescent in order to determine which factors do and which do not lead to aggression in dating situations. This study explores which factors impact attitudes about dating violence and participation in reasoning, verbal aggression, or violence.

Bowen's (1978) family systems theory applies to the adolescent in several ways. The concept of self-differentiation is a desired outcome in the adolescent stage of development and is a critical crisis being dealt with by adolescents (Bartle-Haring, 1997; Ginsberg, 1997). This is seen in many ways as young adults struggle to find what their attitudes and beliefs are in relation to their families. Bartle-Haring explained that from Bowen's viewpoint, how well the family is able to differentiate affects the children's ability to differentiate, which then affects the individual's development. It has also been found that the more differentiated one is from family, the better able he or she is to independently perform on emotional and intellectual levels (Ginsberg). If the family allows members to develop their own attitudes and opinions while still

being able to be part of the family, the adolescent should also be able to find and express his or her own attitudes and opinions.

Another way Bowen's theory applies to the adolescent is in the way Bowen explains anxiety. Anxiety in the family is experienced in different degrees. High degrees of anxiety would be associated with increased feelings of family stress, while low degrees would be associated with less stress. Adolescence is a time when the young person is going through many relationship changes. Families that are healthy are able to tolerate normal differences in closeness and distance, and low-anxiety levels are sufficient for returning the family to normal levels of functioning (Benson, Larson, Wilson, & Demo, 1993). In less functional families, even the smallest level of change in relationships can result in anxiety. The anxiety will affect the young adult's future relationships in the degree the adolescent takes on this anxiety as part of him or herself (Benson et al.; Larson, Benson, Wilson, & Medora, 1998). Since the adolescent takes on levels of anxiety from his/her family, when the adolescent experiences a high level of family anxiety, the anxiety will most likely be carried into future relationships. Nichols and Schwartz (1998) found that those who had handled anxiety in the past by withdrawing and distancing themselves do the same thing when married. The patterns one establishes in dating are often the same patterns used in marriage.

Family boundaries are another premise of Bowen's family systems theory, which specifically affects the adolescent. Anxiety for the adolescent can also result from variations in family boundaries. Family boundaries can be fused or enmeshed which means the family is merged together and is too closely involved emotionally. Different boundaries than what was appropriate when the child was younger and which allow the young adult to move in and out of the family need to be set during adolescence (Carter & McGoldrick, 1988). Nichols and Schwartz (1998) suggest that adolescents make a great effort to become autonomous and to open family boundaries, and a certain amount of flexibility allows the adolescent to accomplish autonomy. Flexible or permeable boundaries best meet the adolescent's needs. Families with adolescents need to form permeable boundaries so the adolescent can separate from the family without breaking off their ties with their family (Ginsberg, 1997). In contrast, boundaries that are too rigid would not allow the adolescent to experience the freedom needed.

Dating Violence

Adolescent dating violence is a widespread and potentially fatal occurrence that presents special challenges because of the population involved (Berry, 1995). Adolescents have a difficult time freeing themselves from abusive relationships because of a lack of knowledge of the resources available to them (Berry) and enduring isolation from resources to help them (Bergman, 1992; Foshee, Linder, Bauman, & Langswick, 1996). Additionally, teenagers who have experienced dating violence tend to tell their peers and not adults, if they tell anyone at all (Bergman; Gelles & Cornell, 1985; Wolfe & Feiring, 2000). Along with lack of knowledge, the adolescent often does not have the past life experiences to which the violent relationship can be compared and thus does not know how to handle conflict or violence (Wolfe, Wekerle, & Scott, 1997).

Adolescents are less likely to be informed about verbal abuse and that verbal aggression can heighten into physical aggression (Powell, 1991). Carey and Mongeau (1996) used the Conflict Tactics Scale with college students and found that verbal aggression was the strongest predictor of physical aggression. Therefore, verbal aggression is a part of dating violence that must be considered when dealing with adolescents and dating violence.

Since dating violence is often an antecedent to domestic violence (Simons, Lin, & Gordon, 1998), the dire consequences of domestic violence must be considered. Such consequences include injuries, anxiety, depression, damaged self-image for both partners, decreased quality of life for the family, and sometimes death (Infante, Chandler, & Rudd, 1989).

Berry (1995) describes the domestic abuse problem as not being limited to any one group anywhere in the world. Other studies also have found that domestic violence can happen to anyone (DiNitto & McNeece, 1997; Locke & Richman, 1999; McShane, 1988; Stewart, Senger, Kallen, & Scheurer, 1987). The rates of domestic abuse are hard to accurately count because many never report the abuse. Estimates are that up to 6 million women in the United States are abused in their homes each year; about 4 million occurrences are reported (Berry). Men are victims of domestic violence at a lower rate. Estimates are that 100,000 men are battered in the United States each year (McCue, 1995)

Various researchers have found the emergence of several factors when studying dating and domestic violence. Several of these previously found factors were assessed in this study, along with family openness, to see if they affected attitudes about dating violence and the participation in violent acts, verbal aggression, and reasoning. One factor often found in past research is differences in attitudes and participation between the genders. Self-esteem is another area that comes to the forefront in past dating and domestic violence literature. There are studies showing that those who cohabitate are at greater risk for experiencing dating violence. In addition, income also seems to have a link to violence, with more violence occurring in married couples with low-incomes. Lastly, race has been shown to relate to dating violence. See Figure 1 for proposed variables.

Family Openness

Ginsberg (1997) explains that family systems theory recognizes the importance of families that are flexible so that the adolescent can developmentally grow. Similarly, Benson et al. (1993) found that families that were not open but that were fused led to adolescents that had closed communication in dating relationships. Fused families transmitted closed communication patterns to the adolescents, which were then used in dating relationships.

Gender

Studies have found conflicting findings on which gender perpetrates more abuse. Some studies say men abuse more, some say that women abuse more, and other studies have found rates to be about equal.

The finding that females were equally as likely as males to be violent is supported in a number of studies. Johnson-Reid and Bivens (1999) found when studying dating violence that males and females were equally the abuser. O'Leary, Malone, and Tyree (1994) found in their study using the Conflict Tactics Scales that physical aggression in married couples was as likely to occur from the wife as from the husband. National surveys by Straus and Gelles (1986) and Straus, Gelles, and Steinmetz (1980) also found similar rates of violence being inflicted by women as by men.

Various studies report that the female is more often the perpetrator of the violence. (Foshee, Bauman, & Linder, 1999; Riggs & O'Leary, 1996). Also, females were more influenced by violence in their peers' relationships than by violence in their parents' relationships (Gwartney-Gibbs, Stockard, & Bohmer, 1987). O'Keefe (1997) noted that the number one reason given by females for using dating violence was anger, followed by self-

defense. Self-defense or retribution was found in numerous studies as the reason women hit (Dutton, 1994; Stets & Pirog-Good, 1987).

Other studies have found that men are more likely to participate in both dating violence and domestic violence than are women. The number one reason given by males for using violence against a partner was anger, followed by wanting to gain control over the other person (O'Keefe, 1997). Various reasons were given to explain the higher rates of abuse inflicted by men. For example, Foreman and Dallos (1993) think that males are socialized to be aggressive and females are socialized to be submissive, while Anderson (1997) found men use violence to re-establish their dominance in a more equalitarian society.

Berry (1995) suggests when it comes to dating violence, in most cases it is the male who is the abuser, and Foshee and Linder (1997) found that those who help victims of abuse view frequent abuse of women as more normal than frequent abuse of men. Also women are more likely to be seriously hurt because of the abuse (Cantos, Neidig, & O'Leary, 1994; Joseph, 1997; Stets & Straus, 1990).

Based on the findings by Berry (1995) related to males being the abuser in more incidences and due to the serious nature of abuse inflicted (Cantos, Neidig, & O'Leary, 1994; Joseph, 1997; Stets & Straus, 1990), gender must be addressed.

Self-esteem

O'Keefe (1998) found that males who had low self-esteem were violent in their dating relationships. Other studies have also shown that low self-esteem raises the probability of abusing or experiencing dating abuse (Burke, Stets, & Pirog-Good, 1988; Stets & Pirog-Good, 1987).

Victims of dating violence have lower self-esteem than those who are not victims (Infante et al., 1989; Sugarman & Hotaling, 1991). People with low self-esteem focus on the positive qualities of others and think they are inadequate in comparison (Stets, 1988). Stets suggests that low self-esteem plays into violence by men because they want to defend their image, and the woman who is a victim feels she deserves the treatment and is not worthy of anything better.

A person's self-esteem is particularly susceptible during adolescence because of the ups and downs of self-image and importance of peer approval (Berry, 1995). During this stressful time of life, the adolescent wants to be accepted by others and often remains in the violent relationship rather than risk feeling unaccepted. Involvement in a violent relationship can lower self-esteem so the adolescent does not feel they deserve better than this type of relationship.

Cohabitation

Several studies have found that cohabitating relationships are more violent than marital ones (Ellison, Bartkowski, & Anderson, 1999; Jackson, 1996; Stets, 1991). In fact, Stets found that aggression occurs twice as much in cohabitating relationships as it does in marriages. In a 1-year time frame, 35 of every 100 cohabitating couples experienced acts of physical aggression, as compared to 15 of every 100 couples who were married (Stets & Straus, 1989).

Since cohabitation is becoming more and more accepted and practiced today (Rindfuss & VandenHeuvel, 1990), it is important to find out why these relationships have higher rates of abuse than marriages. Anderson (1997) believes that cohabitators are more unsure about the future of their relationship, but Stets (1991) believes that cohabitators have certain characteristics, such as being young, African American, socially isolated, depressed, and

struggling with alcohol problems, that when combined, lead to higher levels of physical aggression.

With rates of cohabitation on the rise, there is reason for concern over the violence occurring in these relationships. Many of today's adolescents will become future cohabitators. Rindfuss and VandenHeuvel (1990) note that cohabitation has quickly become an accepted part of life for the younger cohort. In a study done in 1989, it was estimated that by their early 30s, about half of the population had cohabitated (Bumpass & Sweet, 1989).

Income

Various studies support that violence happens more in low-income families (Gelles & Cornell, 1985; McCue, 1995; Okun, 1986). Bolton and Bolton (1987) explained the connection of low incomes to violence as due to the stress that occurs from having limited resources. Those with low incomes do not have the economic means to get help when they need it. Higher income families have more economic resources and more access to help if they were experiencing stress. Also, it should be noted that while lower-income families have higher rates of domestic violence, domestic violence is not confined to only the low-income groups.

Race

One's race can influence his or her attitudes and actions due to cultural factors and upbringing (Kristiansen & Giulietti, 1990). What is accepted in some cultures is unacceptable in others. Also, opinions about domestic abuse can be affected by one's race (Locke & Richman, 1999). Often it is not race alone that influences one's behavior, but a combination of factors. Anderson (1997) states that a variety of factors influence power and violence in relationships. And in a study by O'Keefe (1997), African Americans were shown to have higher rates of dating violence until the effects of other variables were accounted for, and then no major differences were found between the African Americans and Caucasians. However, other studies have found that African Americans are more likely to be involved in domestic violence (Anderson) and participate in more extreme forms of aggression (Stets, 1992).

The purpose of this study was to identify which of the following factors—family openness, gender, self-esteem, attitudes towards cohabitation, parent's income, and race—would impact an adolescent's attitude about dating violence and their participation in reasoning, verbal aggression, or violent acts.

Hypotheses

This study assessed the following research hypotheses:

1. It was hypothesized that family openness, measured in terms of family adaptability, will be inversely related to attitudes about dating violence and higher rates of participation in verbal aggression but positively related to use of reasoning.
2. It was hypothesized that males will have more accepting attitudes toward dating violence and higher rates of participation in verbal aggression and violent acts and lower rates of the use of reasoning than females.
3. It was hypothesized that self-esteem will be inversely related to accepting attitudes about dating violence and rates of participation in verbal aggression and violent acts but will be positively related to reasoning.

4. It was hypothesized that accepting attitudes towards cohabitation will be positively related to attitudes toward dating violence and higher rates of participation in verbal aggression but inversely related to use of reasoning.
5. It was hypothesized that parents' income will be inversely related to accepting attitudes about dating violence and rates of participation in verbal aggression and violent acts but positively related to use of reasoning.
6. It was hypothesized that race will be related to attitudes about dating violence, participation in verbal aggression and violent acts, and use of reasoning.

Method

Procedure

As part of a larger curriculum evaluation study, various high school teachers in Family and Consumer Sciences from California were contacted and asked to have their students in two courses complete questionnaires. Curriculum publishers offered teachers free student workbooks for participating in a study. After parental consents and school administration approval was obtained, participating students were given questionnaires by their teachers to complete. Teachers then mailed the completed information back to the researchers.

Sample

A total of 122 high school students from seven California schools participated. These schools are in urban communities of over 90,000 people. Ages of the students ranged from 14 through 19 years old with a mean of 16.6 years old and a standard deviation of .98. Grade level ranged from freshmen to seniors with a median being juniors. Both genders were given the survey but there were many more females, n = 99, in the classes than males, n = 23. The following races were represented: Hispanic, Asian, Caucasian, African American, and Native American. The average parental annual income of the students fell in the category of $30,000 to $40,000.

Measures

The Family Adaptability and Cohesion Evaluation Scales III (FACES III) is a 20-item Likert-type self-report instrument that assesses family levels of adaptability and cohesion. For this study, only the adaptability scale was used as a measure of family boundary adaptability and openness. High scores, the highest possible being 50, on the FACES III instrument indicate high levels of family adaptability. The Family Adaptability and Cohesion Evaluation Scales III has a Cronbach's alpha for cohesion of .77 and .62 for adaptability. Test-retest reliability is .80-.83 (Olson, 1986). This study found a Cronbach's alpha of .65 for adaptability.

The Conflict Tactics Scales is a common measure of conflict tactics and violence in close relationships. The measure of actual aggression used in this study was 16 items taken from the Conflict Tactics Scales, a revision of Form - R by Straus (1979). Various acts are rated in terms of the number of times the participant used reasoning, verbal aggression, and violent acts in resolving a conflict with his/her boyfriend/girlfriend. Scores then are summed for the reasoning scale, verbal aggression scale, and violence scale (Straus & Gelles, 1990). The scale was revised slightly for this study to ask about violence between dating partners versus married partners. Additionally, three more violent acts, "burning or scalding him/her," "threatening him/her with a knife or gun," and "using a knife or firing a gun," were deleted in order to be acceptable to school administrators for use in their schools.

Straus (1990) reported the following reliability coefficients (Cronbach's alpha) for the Conflict Tactic Scales: (a) Reasoning, Cronbach's alpha of .61 (ranged from .50 to .76); (b) Verbal Aggression, Cronbach's alpha of .80 (ranged from .77 to .88); and (c) Violence, Cronbach's alpha of .79 (ranged from 62. to .88). Gardner (2001) used a revised version of the scale with high school students and reported Cronbach's alpha coefficients as follows: (a) Reasoning of .65 (ranged from .64 to .66), (b) Verbal Aggression of .85 (ranged from .83 to .87), and (c) Violence of .91 (ranged from .90 to .93). In this study, the Cronbach's alpha for Reasoning was .54, Verbal Aggression was .84, and Violence was .87. Straus has established validity of the Conflict Tactic Scales.

A Likert-type scale was developed to assess attitudes towards relationship violence (see Appendix). Scores on the two dating violence questions that totaled eight or more (1 = Strongly Disagree, 5 = Strongly Agree) indicated accepting attitudes of relationship violence. The questions for establishing accepting attitudes of relationship violence had a Cronbach's alpha of .80. As this is not an established scale, validity has not been documented.

Rosenberg's (1979) Self-Esteem Scale provided a general overall self-esteem score for each respondent and was chosen for its widespread use and conciseness. High scores on Rosenberg's Self-Esteem Scale, with the highest score possible of 45, show high levels of self-esteem.

The validity of Rosenberg's scale is first shown by its scores being associated with a variety of positive characteristics such as: (a) confidence, (b) popularity (Lorr & Wunderlich, 1986), (c) school abilities, (d) physical appearance (Fleming & Courtney, 1984), and (e) self-esteem as measured by the Learner Self-Esteem Scale (Savin-Williams & Jaquish, 1981).

In the area of reliability in terms of internal consistency for Rosenberg's Self-Esteem Scale, Dobson, Goudy, Keith, and Powers (1979) obtained a Cronbach's alpha of .77, and Fleming and Courtney (1984) had a Cronbach's alpha of .88.

Test-retest reliability was reported by Silber and Tippett (1965) as a .85 correlation of 28 subjects after a 2-week period. Fleming and Courtney (1984) found a test-retest correlation of .82 with 259 subjects over 1 week. For this study, a Cronbach's alpha of .88 was found.

A Likert-type item was developed to assess attitudes toward cohabitation (see Appendix). Scores on the cohabitation questions that summed three or more (1 = Strongly Agree, 4 = Strongly Disagree) indicated accepting attitudes of cohabitation.

Analysis

A stepwise multiple regression was used to assess which variables (family openness, gender, self-esteem, income, attitudes about cohabitation, and race) influenced attitudes about dating violence. Then three stepwise multiple regression analyses were run to see if any of these variables were significantly related to participation in reasoning, verbal aggression, or relationship violence.

Results

This study investigated the influence of family openness, gender, self-esteem, attitude toward cohabitation, parents' income level, and race on attitudes about dating violence and participation in reasoning, verbal aggression, and violent acts. The findings of the following research hypotheses are reported.

1. Family openness was found to be significantly and positively correlated with reasoning scores on the Conflict Tactics Scale with a Pearson correlation r (115) = .20, $p < .005$.

2. Low self-esteem scores were related to high verbal aggression scores with a Pearson correlation $\underline{r}$ (113) = -.32, $\underline{p} < .001$.
3. Although the dummy coded variable for race showed it to be significantly and positively correlated with reasoning scores on the Conflict Tactics Scale, a more appropriate test, ANOVA, revealed that race only approached significance. Because race is a categorical variable, an analysis of variance was necessary to determine if the various racial groups differed significantly on the dependent variable.
4. None of the other variables of gender, attitudes toward cohabitation, income level, or race were found to be significant.

Significant Variables

A series of stepwise multiple regression analyses showed two models with variables remaining in the regression equation at the .05 significance level. High degrees of family openness predicted high amounts of reasoning ($\beta = .121$, $R^2 = .041$). Family openness accounted for 4% of the variance in reasoning. Low scores on self-esteem predicted high amounts of verbal aggression ($\beta = -.389$, $R^2 = .101$). Self-esteem accounted for 10% of the variance in verbal aggression.

Discussion

Family Openness

Family openness was tested in stepwise multiple regression to establish the relationship, if any, between this variable and attitudes towards dating violence and participation in reasoning, verbal aggression, and violent acts. No significant correlation was found between family openness and attitudes towards dating violence or participation in verbal aggression or violent acts. An association was found between family openness and reasoning.

Families that were more open and adaptable had adolescents who used more reasoning in resolving conflicts than did adolescents in more closed families. This result stresses the importance of family openness as a positive family characteristic for the adolescent. Bowen's family systems theory states the importance of looking at the whole family and not just individual members (Bowen, 1978). Family openness was related to reasoning which focuses on the whole family. Higher levels of family openness were related to higher scores for use of reasoning. Bowen felt family openness was needed for family members to be able to successfully differentiate from one another. Bowen would also see family openness as especially important to adolescents who need more flexibility in their families.

Open and adaptable families would also model open and adaptable communication styles when a parent-adolescent conflict occurs. These families are open and adaptable enough to listen to the adolescent's point of view and both reason together even with heated issues. These skills are modeled for and learned by the adolescent who can now easily use them in conflicts with boyfriends or girlfriends.

Gender

Gender was tested in a stepwise multiple regression to see if males in this study were, as some other studies have found, more abusive than females. No significant relationship was found for gender and attitudes towards dating violence, reasoning, verbal aggression, or violent

acts. The finding that males were not more abusive than females supports various other studies (Johnson-Reid & Bivens, 1999; O'Leary et al., 1994; Straus & Gelles, 1986; Straus et al., 1980).

Self-esteem

When stepwise multiple regressions were used, no significant relationship was found between self-esteem and attitude towards dating violence, reasoning, or violent acts. Self-esteem was found to be related to verbal aggression. Since verbal aggression often leads to physical abuse (Carey & Mongeau, 1996; Powell, 1991) this study's findings agree with many other past studies. It may well be that those who feel poorly about themselves use verbally aggressive conflict tactics to put others down to feel superior to them.

Cohabitation

This study investigated the relationship between attitude about if cohabitation is acceptable and attitude about dating violence and reasoning, verbal aggression, and violent acts by using stepwise multiple regression. No significant relationship was found to exist between any of the above variables. More questions about cohabitation would add to the reliability of actual attitude towards cohabitation and help assess how these attitudes relate to attitudes about and participation in reasoning, verbal aggression, and violent acts. It is important to remember that attitudes about cohabitation do not predict actual cohabitating behavior.

Income

Since the study assessed high school students, who are assumed to have limited incomes due to the amount of time in school and lack of college educations, the study used parents' annual income as a measure of the student's family income. When put in a stepwise multiple regression, parents' annual income was not significantly correlated with attitudes towards dating violence or participation in reasoning, verbal aggression, or violent acts.

Income alone may not be a very good indicator of domestic violence. However, income does influence the resources that can economically be obtained for dealing with stress and other problems (Bolton & Bolton, 1987). Although domestic abuse does not occur exclusively in any one economic group, low-income families do have higher rates (McCue, 1995). However, income may not be a factor in this study because it may not be as stressful on an adolescent living in a low-income family as it would be the parent who is responsible for meeting the family's needs.

Race

Races represented in this study were Hispanic, Caucasian, Asian, African American, and Native American. This sample accurately represents California's overall population, which has a mixture of Hispanics, Caucasians, Asians, African Americans and Native Americans and others. No significant relationship was found for race and attitudes towards dating violence, reasoning, verbal aggression, or violent acts.

Because race influences attitudes and actions due to cultural factors and upbringing (Kristiansen & Giulietti, 1990), it is an important variable to include when studying relationship violence. Although this study assessed participant's race, cultural identification was not assessed. Therefore, we do not know the degree to which a participant who says he or she is Hispanic truly subscribes to traditional Hispanic values and beliefs.

Limitations and Recommendations

The findings of this study need to be viewed with caution because of the study's limitations. A more equal distribution between genders would be desirable. Also, the small number of males included in this study could have influenced the lack of significance found. The reason that more females responded than males is most likely due to greater numbers of females taking family and consumer sciences classes. A more equally divided gender sample may have led to different results.

Other limitations occur because of the use of the Conflict Tactics Scales. Violent acts are not distinguished between aggressive acts and ones used for self-protection. Also, since this is a self-report with no partner to average scores actual rates of violence may be under-reported or possibly over-reported (Archer, 1999).

Another limitation is that adolescents who did not receive parental permission did not participate. It is possible that families with more aggressive adolescents did not let them participate in the study. There is no way to assess why these students were not allowed to take part in the study or how they would have answered. Other students who were removed from the study did not complete the needed information or appeared to have guessed when answering the questionnaire.

One recommendation is to do a similar study with different populations. For example, students from rural areas and additional races could be included to see if similar results were achieved. Certain populations such as low-income families could also be targeted. Comparing results from different populations would help in the understanding of which factors are related to domestic violence.

A second recommendation would be to add more items to the questionnaire to determine more completely one's attitude about cohabitation. By adding more questions or a scale, inter-item reliability would be determined and ensure reliability of the measure.

A third recommendation is to have dating couples fill out the survey to determine how accurate students are being when they report on acts of reasoning, verbal aggression, and violence. More accurate results would be able to be obtained from averaging two scores, one done on self and one completed from the dating partner's perspective. Since it has been found that self-reports on the Conflict Tactics Scale tend to under-report actual incidences, averaging should provide more accurate scores.

Another recommendation is to construct a detailed study on how to increase family openness as a means to increase adolescents' use of reasoning and how to raise self-esteem in adolescents. This additional study could determine what specific factors in open families lead to more acts of reasoning and study ways to increase openness in families and increase self-esteem in adolescents.

A final recommendation would be to add other variables not presently studied to try and account for more of the variance in attitudes about domestic violence and participation in reasoning, verbal aggression, and violent acts.

Implications for Family and Consumer Sciences Educators

Implications from this study are important to those teaching adolescents and working with families. This study shows that low self-esteem is related to increased use of verbally aggressive conflict tactics. When an adolescent uses verbally aggressive means of resolving conflicts (putdowns, threats, etc.), teachers and others often interpret their motives as negative and oppositional. In reality it may be a response to feeling a negative sense of self. Such

adolescents need new ways of dealing with these negative feelings of self, such as using "I" messages, commenting on the process, etc.

In terms of family openness, often times families with younger adolescents struggle with allowing the child to voice opposing opinions. Those working with parents and families can encourage parents to model respectfully listening to the opposing viewpoints of the adolescents, taking the time to reason with them, and avoid pulling out the "Because I'm the parent and I said so" trump card to cut off further dialogue. In this way, adolescents learn positive methods of resolving conflicts in their lives.

Family and consumer sciences educators can use findings from this study in many ways to decrease the use of verbal aggression and increase the use of reasoning. One of the main ways educators can use these findings is by implementing programs that build on the adolescent's self-esteem, since lower self-esteem was shown to be linked to use of verbal aggression. One way that youth build self-esteem is by being given opportunities to experience feelings of aptitude and success through educational experiences (Wolfe & Feiring, 2000). Family and consumer sciences classes could provide students with such experiences.

Another implication for family and consumer sciences teachers from this study is the importance of educating students on how to handle conflict appropriately with out using verbal aggression or violent acts. Wolfe and Feiring (2000) state how important it is for adolescents to learn how to handle interpersonal conflict in appropriate ways. Family and consumer sciences educators could provide the much needed conflict management skills to their students.

Lastly, since family and consumer sciences educators teach about families, it would be important for classes to include information on the importance of family openness to adolescent development. This information would be valuable for not only students, but the student's families as well.

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Appendix

Measures Used to Determine Attitude Toward Dating Violence and Attitude Toward Cohabitation

Directions: Using the following scale as a guide, indicate how much <u>you</u> agree or disagree with each statement. Circle one response for each statement. Answer as honestly as you can. Remember your answers will be kept strictly confidential.

1	2	3	4	5
Strongly Disagree (SD)	**Disagree (D)**	**Not Sure (NS)**	**Agree (A)**	**Strongly Agree (SA)**

In today's society, slapping a spouse or dating partner is understandable under some circumstances..... 1 2 3 4 5

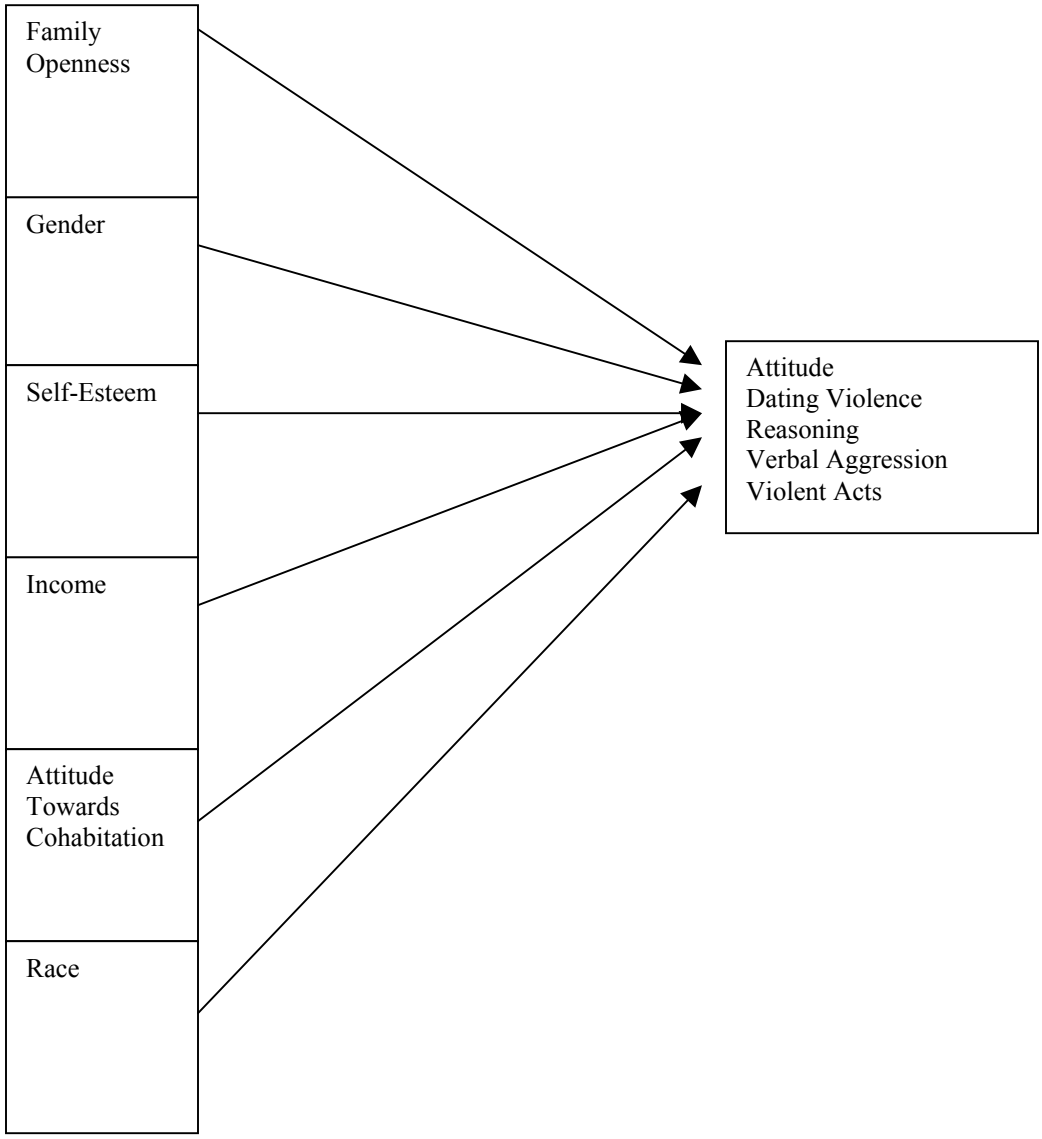
In today's society, pushing a spouse or dating partner is understandable under some circumstances..... 1 2 3 4 5

Using the following scale as a guide, indicate how much <u>you</u> agree or disagree with each statement. Circle only one response for each statement. Answer as honestly as you can.

YES!	yes	no	NO!
Strongly Agree (SA)	**Somewhat Agree (sa)**	**Somewhat Disagree (sd)**	**Strongly Disagree (SD)**

It's O.K. to live with a dating partner and not be married..... …YES! yes no NO!

Figure 1: Proposed variables related to attitudes toward dating violence, reasoning, verbal aggression, and violent acts.



PRACTICING TEACHERS' ADVICE FOR MARKETING AND RECRUITMENT OF EDUCATORS AND REVISITING THE IDENTITY ISSUE

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The purposes of this study were to obtain a first-hand account from practicing family and consumer sciences (FCS) teachers about their perceptions on the teacher shortage and their suggestions for recruitment and retention of FCS teachers. Practicing teachers who attended regional professional development workshops shared their advice to help new FCS teachers prepare for the challenges and rewards of the classroom. The information learned was encouraging and affirmed the FCS teachers' personal role in recruitment and retention of FCS educators. Their identity as FCS teachers is strong, and their advice helpful.

Research has documented that secondary family and consumer sciences (FCS) teachers' influence on new FCS teacher education graduates is second only to the new teachers' interest in FCS subject matter as key determinants of their career choice (Mimbs, Stewart, & Heath-Camp, 1998). What advice can FCS teachers give to the profession, to new teachers, to teacher educators? What teachers can best give this advice? Those who are successful in their career choice, those who experience high job satisfaction must be doing something right. Perhaps it is time to seek advice from those with teaching experience, those who have lived through the changes in the profession, and those who are actively involved in their own professional development as FCS teachers. Can they give us insights for the on-going challenge of meeting the demand for FCS educators? What is the teacher's role in marketing the profession?

The purposes of this study were to obtain a first-hand, descriptive account from practicing FCS teachers who are active in professional development about their perceptions of the teacher shortage and their suggestions for recruitment and retention of FCS teachers. Seeking the advice of experienced teachers and determining areas for further research were important to this study. A brief examination of these teachers' influential career choice factors, job satisfaction, and demographic characteristics is included, as well as a discussion of professional identity and marketing and its connection to recruitment and retention.

Related Literature

Improving the image of the profession that is unfortunately stereotyped and reinforced by some practicing teachers was recommended as a result of a recent study on why teachers are not teaching. Mimbs (2000) examined the perceptions of teachers who are no longer in the classroom, many of which did not have a positive opinion of teaching FCS. The need to improve the image of FCS and the need for more support from administrators and other stakeholders of the education community for FCS was suggested by respondents to improve recruitment. When teachers themselves do not have a positive opinion of their own profession, they cannot present a positive image to their many audiences.

Concern for marketing the profession and the struggle for a clear identity for the FCS profession has continued. When considering personal identity as key to career development, conceptualization of a professional identity becomes important. Personal identity is directly

related to professional identity. One's goals, values, and beliefs are all part of one's personal identity (Gentzler, 1993). Vincenti (1993) describes the need for a clearer philosophy for the profession from which to build a new identity. Wild and Smith (1993) describe the identity issue as one that concerns all in the profession and one that should be acted upon. In the recent study by Mimbs (2000), improving the image of the profession and the purposes of FCS programs was the theme most often expressed by respondents. Other themes included confusion over the identity of the profession, the name change which implied a change in the way FCS is taught, and the reality of what is actually occurring in some classrooms. The public's perception continues to be stereotypical even in current television advertisements depicting home economics. Does the recent research and the continued use of stereotypes affect the supply of FCS educators? The profession of FCS has reported an ongoing shortage of teachers and extension educators in the field (Jackman & Rehm, 1994; Miller & Meszaros, 1996).

Concern for providing an adequate supply of FCS educators has directed our energies to updating FCS education programs. Some examples include reaching out to nontraditional students, hiring second career persons to fill teaching vacancies, and using accelerated and irregular certification programs (Lee, 1998; Travers, 1999). The study conducted by Mimbs et al. (1998) indicated an increase in the numbers of non-traditional, second career students in FCS teacher preparation programs. There has been considerable attention given to reform in teacher education in all disciplines at colleges and universities. These include professional development school models and partnerships with schools, teacher academies, masters' degree programs for certification, accelerated teacher education programs, and alternative certification strategies (American Association of State Colleges and Universities [AASCU], 1995).

Does changing the way we provide teacher certification and offering alternative options really make the difference in recruitment and retention? Is there a discrepancy between the vision of those who worked so hard to position the profession for the 21st Century (American Home Economics Association [AHEA], 1994) and what is happening in the classroom? Has the name change, development of National Standards for FCS (National Association of State Administrators of Family and Consumer Science [NASAFACS], 1998), and related efforts made a difference? Have we marketed a new identity that is in conflict with what practicing teachers are doing? These questions will require more research to find the answer. However, some have studied the identity issue. Often the teacher and her/his classroom are the only picture students and parents have of FCS. Erwin (1995), who examined guidance counselor's perceptions of secondary FCS programs, recommended that teachers do a better job of marketing the value of what FCS teachers teach. A link was found between the teacher and the perceptions of the program and also to the larger community. Lee (1998) examined secondary school students' perceptions of the field, which indicated their confusion about what FCS is. Lee described a concern for the perpetuation of the stereotypical curriculum as a deterrent to young people choosing it as a career.

It is important to ask why teachers choose to teach. In a survey of 93 education majors, over 95% of the students strongly agreed with the following statements, "Teaching will allow me to make a positive difference in the lives of children and youth," "Teaching will give me an opportunity to use my creative abilities," "I like working with children," and "I like children and youth" (Hayes, 1990). Believing one will like what they plan to do is important. Sarason (1993) described one necessary criteria of choosing a teaching career as whether or not "becoming a teacher very much appeals to you" (p. 16). In addition, Sarason stated that persons who choose teaching want to take a role in influencing children's development.

Teachers often indicate the need to “nurture” as a motivation for their choosing teaching as a career as found in a study of recent graduates of FCS teacher education programs (Mimbs et al., 1998). Serow (1994) examined the notion that teachers actually believe they have a "calling to teach.” Bogue (1991) also defines teaching as a “calling" and describes teaching as "a journey of the heart" (p. 92). Over 30% of respondents in the study by Mimbs (1997) indicated they felt teaching was a calling in their life. Understanding one's own motivations is helpful in making a career choice (Sarason, 1993). Through the process of career development, one finds a fit between their personality, needs, values, and interests with the set of characteristics needed for success in whatever career they are seeking. They need to take into account the influence of social, environmental, and economic factors in making their career decision. This is described as salience theory, the value one places on life roles, and how they change over time (Scharf, 1997).

Marketing one’s own career to others is a key responsibility of FCS teachers, especially in a time of critical teacher shortage. There are many careers available to secondary students today. Making FCS education a viable option requires efforts by practicing teachers. Students need to see teachers that they themselves can use as role models. They need to be able to picture themselves as that teacher, if they are going to choose teaching FCS as a career. Research has not sought the opinion and advice of practicing teachers. Yet as suggested by Wild and Smith (1993), this is particularly important especially with regard to marketing the profession.

Methodology

Subjects

All 94 FCS teachers who attended regional curriculum workshops in a large Midwestern state in spring 2000 were the subjects targeted for this study. The regional workshops covered six different geographical locations across the state. The workshop session was planned and prepared at a central location as a team by FCS state staff, teacher educators, and curriculum writers, then delivered separately by members of the team at the six locations. Both a state FCS newsletter and an email list-serve announcement were used to advertise the workshops. Workshops were delivered in universities, schools, and area conference centers.

Instrumentation

The researcher developed the survey, and workshop team members provided feedback before the surveys were distributed. The survey included personal, education, and employment demographics; career choice-factors; and four open-ended questions on retirement, recruitment, and retention. The career-choice factors portion of the survey was adapted from that used by Mimbs et al. (1998) and Serow (1994).

Surveys were given to all who attended the workshops (n = 94). The completed surveys were then mailed in batches from the different locations by team members to the researcher. This provided anonymity. The researcher numbered the surveys as they were returned for data analysis purposes. A total of 83 persons completed the survey for an 88% return rate.

Data Analysis

Personal, education, and employment demographic data was analyzed using frequency distribution and descriptive statistics. Career-choice factor data is reported here in descriptive form and was informally compared to findings of an earlier study using the same survey questions (Mimbs et al., 1998). The answers to open-ended questions were analyzed using NVivio qualitative software (Richards, 1999). This software allows for sections of text, individual words, and phrases to be examined for similar meanings and repetitive use.

Definitions are assigned and themes created to give meaning to open-ended text responses, such as those the teachers gave to the open ended questions.

Findings

All the respondents were female and most were Caucasian except for one person who was Asian and one who was Hispanic. Over half of the participants in the study were between the ages of 41-50, and 23% were between the ages of 51-55. A total of 82% of respondents were married with 64% indicating they had children living in the home. Almost 34% indicated they interrupted their teaching for parenting/homemaking responsibilities, and 41% indicated they taught after being a full-time homemaker and/or parent.

Job satisfaction was high for these teachers participating in the regional workshops. A total of 59% were very satisfied while 31% were somewhat satisfied with their current teaching job. Teaching was the first career choice of 81% of respondents, and FCS was the first choice of discipline for 89%. A total of 48% made their career choice while in high school and 34% while in college. Comparing this to the study of newly certified FCS teachers (Mimbs et al., 1998), these practicing teachers are considerably older, have higher levels of education, and indicated teaching FCS as a first career choice more often than newly certified teachers. More of them also made their career choice while in secondary school than newly certified teachers.

A total of 40% of participants had been teaching FCS for over 20 years. Expected time of retirement was within the next 3-5 years for 35% and within 10 years for another 25%. The majority of respondents were teaching in comprehensive FCS programs at the high school level. The education level of respondents varied with 39% having credits beyond a bachelor's degree, 24% with a master's degree, 33% with credits beyond a master's degree, and less than 5% with a bachelor's degree only. A total of 42% of respondents received their teaching licensure between the years of 1970-1975, and most have a lifetime certificate.

Respondents were asked to choose from a list of 12 factors which ones they felt were influential to their decision to seek teacher preparation as their career choice. The three factors most often chosen by these practicing teachers were "I like working with young people" (60%), "I like helping people" (52%), and "The example of my own teachers inspired me" (43%). This compares to the same most influential factors indicated by recent graduates of FCS teacher education programs as (57%), (55%), and (40%) respectively (Mimbs et al., 1998).

The teachers were asked to answer the following open-ended questions: (a) Do you feel there will be available applicants for your position when you retire? Please explain., (b) Are you planning to teach longer than you anticipated because of the lack of applicants to take your place? Please comment., (c) What suggestions do you have for recruitment and retention of FCS teachers?, and (d) What advice would you give to new FCS teachers?

Over 40% of respondents indicated they did not expect there to be available applicants for their position when they retire. Ten of those persons explained it was because few choose FCS as a career. Others indicated low pay and lack of available programs at universities as reasons they felt there would not be available applicants. Eleven persons were unsure of their replacement, and seven other persons were hopeful they would be replaced but did not explain further.

Only 19% (n = 16) were confident there would be applicants. Several of these persons indicated they felt this was because of their geographical location near or in a more densely populated area. Three of those persons described confidence in their replacement because they themselves were promoting it as a viable career to their own secondary students.

A total of 52 persons (63%) of respondents indicated they would not teach longer than they had expected. Ten other teachers indicated they would consider staying, but were uncertain. One wrote, "I don't know. I will hate to see my program abandoned if there is not replacement for me." Another person wrote, "Maybe. I hate to let my department down after we spent so long building and validating my programs." One other person indicated their commitment to their program, with a condition. "Yes, I'll probably teach until a replacement is found; however, I will not go past 60 years of age."

Five themes were discovered as a result of analysis of the teachers' responses to the question asking for suggestions for recruitment and retention. They include: (a) more innovative marketing of the profession as a career, (b) earlier recruitment and more recruitment efforts by teachers through their own classrooms and by university programs, (c) increased community and administrative support for programs, (d) more scholarships and teacher education programs available to students, and (e) concern for better salaries. Some teachers expressed a concern regarding low pay, support from schools, and awareness of importance of what FCS teachers contribute as one person wrote "More pay, more recognition. It's almost like we don't teach 'real stuff.' We are a dumping ground for non-college bound students and those who don't really care about school." However, the suggestions shared by many respondents were more positive and enthusiastic which showed their commitment. Some examples follow.

> Exhibit a positive, enthusiastic attitude about what we do! Be a role model and "put a bug" in your student's ear. Build up your program and advertise and enjoy your job! Focus on the variety involved in the job and the support systems in place. Visit FCS programs, get great ideas, believe in yourself, what you teach is important.

Some of the recruitment suggestions included the need to market the profession as not only needed and practical, but also changing and innovative. Teachers expressed the need to continually promote their role as professional and thus improving their image. One teacher wrote, "We need to choose students who we think would enjoy the profession and assert their interest and offer more scholarships." A recurring theme is well stated in these two comments, "FCS teachers in middle and high school are our best resource for recruiting. Teachers have to sell their programs, be a role model." Another person also suggested more recruitment of student organization members from the Family, Career, and Community, Leaders of America (FCCLA).

The teachers gave a lot of advice for new FCS teachers. As the comments were analyzed, 10 themes appeared as follows: (a) be involved in professional development activities, workshops, conferences, and further education; (b) seek help from other teachers and ask questions, (c) get organized and budget time, (d) be flexible and adaptable, (e) be ready for hard work and challenges, (f) enjoy your career and remember the value of your profession with its' rewards, (g) create balance in your life, (h) hang in there, things get better, (i) show kids you care and teach what they need, and (j) promote your program. Some teachers' comments included several of the themes as evidenced here.

> Become involved in organizations, network with others, visit with other teachers for encouragement and advice. Don't be an island. Rewarding, but be prepared to be daily exhausted. It is a very fulfilling career. Don't let the scope of FCS overwhelm you. The first 2 years are the roughest because there is so much you learn that cannot be taught in a classroom. Create a balance in your life.

Discussion and Conclusions

It is interesting to note how similar the respondents in this study are to one another. They can be described as female, the majority of which are married, and parents, one-third of which have interrupted teaching to do parenting and/or homemaking responsibilities, yet the majority of respondents have many years of teaching experience and high job satisfaction. Being able to balance their work and family responsibilities and enjoy what they do is a very positive description of their teaching careers. This should be used by teachers when recruiting students for teaching. Despite this description of their own teaching career, many indicated their concern for enough available applicants for their own replacement.

Person's certified as FCS teachers, whether newly certified or practicing, is very similar to one another. Their career choice was made based on similar altruistic values. Altruism, helping others without concern for one's self, has been identified as a motivating force for those seeking a teaching career (Daniel & Ferrel, 1991). A full 33% of recent graduates newly certified for teaching FCS were characterized as altruistic (Mimbs et al., 1998). Both the experienced teachers in the current study and those in the study of those newly certified made their career choice because family was important to them, and they sought professional satisfaction and creativity in their work. They were similarly influenced by their interest in working with and helping young people and their own teachers' inspiration.

Open-ended question number three about suggestions for recruitment and retention was also used by Mimbs (2000) in the study of non-teaching certified persons. Themes that were similar to both studies include image of the profession, concern for better salaries, and improving administrative and community support for programs. This current study targeted practicing teachers' suggestions, and there seems to be a more positive proactive response than that from those not teaching. The study by Mimbs indicated more responsibility for recruitment and retention should be on the teacher education programs and school administrators. Whereas practicing teachers in this study indicate they feel a responsibility themselves to increase their own recruitment efforts and use their classroom, programs, and students to market the profession as a career.

As suggested by Feltehausen and Couch (1991), it is often through an introduction by teachers in secondary schools that persons first become interested in careers in FCS. The teachers in this study seem to understand this responsibility to market their programs. Some examples of this proactive stance that is evidenced in the comments of several respondents are as follows: "Work with school administrators about relevance of FCS program. Get them to support you." "FCS teachers in middle and high school are our best resource for recruiting." "Exhibit a positive, enthusiastic attitude about what we do. We tend to moan and groan about how busy we are." " Build up your department, advertise, and enjoy your job!" O'Brien and Rehm (1993) encourage FCS educators to remember that "students are our reasons for being," and they reinforce the power of enthusiasm as key to marketing what we do (p. 112). This follows for all levels of students. For instance, a study by Lee (1998) indicated that enthusiasm demonstrated by university faculty was a key contribution to the success of those seeking FCS teacher certification.

The results of this study are also encouraging to FCS professionals, teacher educators, state staff, and others who are involved in preparing and delivering professional development activities, workshops, in-service and pre-service training for FCS educators. We must continue our efforts to provide opportunities for FCS educators. Professional development should be

ongoing and relevant. As suggested by Jones, Vail, and Williams (2000), professional development should meet the needs of the teachers to best facilitate change.

The advice given to new FCS teachers is also mostly positive in nature. The 10 themes reflect taking action; taking responsibility; awareness of challenges; seeking help when needed; continuing professional development; working hard; and being creative, flexible, and active in the profession. This positive approach is refreshing. Since these are workshop attendees who are likely to be more active themselves in improving their teaching and taking advantage of networking and professional development activities, perhaps they are more inclined to see the positive side of the issues. Brown (2000) suggests that successful professional development should include opportunities for teachers to network with each other.

This study was small in numbers; however, it was representative of six regions across the state and can be somewhat generalized for FCS teachers who are active in professional development activities. Further study of these respondents' specific strategies for recruitment of their FCS secondary students to pursue FCS education as a career would be helpful. Although respondents were unsure that there would be someone to replace them, they provided positive advice for FCS teachers and indicated an understanding of the importance of their own recruitment efforts. They appreciate the responsibility they have in marketing the profession and in being a role model, demonstrating that they value what they do. It is also encouraging as evidenced through their comments that they enjoy their work and find rewards as FCS teachers.

The results of this study indicate that many of these teachers do not need to be persuaded that what they do is important, and they are well aware of the seriousness of the supply issue. They know they must take action to recruit replacements for themselves. Others need to join with them to actively market their careers as a viable career choice for students. As these teachers have expressed their own personal experiences, FCS educators need to listen and take their advice. This proactive approach to recruitment was echoed in the comments of many respondents. Perhaps more FCS teachers should coin the phrase one respondent shared, "If you want to change the world, choose FACS as a career!"

It is important to also remember the larger value and outcomes of the work of FCS educators: (a) improving families, (b) creating life-long learners, and (c) making a better world. To make a real impact on the teacher supply, FCS teachers need to have an awareness of the concerns of professional identity and make concerted efforts to cooperatively market the value and necessity of the continuation of secondary programs for individuals and families. Teachers of FCS are prepared to teach in all specialty areas of the field. They touch the lives of many youth and families by empowering them with skills to balance the multiple roles they play as part of a family, community, and work environment.

Perhaps the next questions to ask FCS teachers are, "Did you find creativity and professional satisfaction in your chosen career? Were you able to balance the values of family and helping people with your own family's priorities and responsibilities? Further research should include an examination of FCS teachers' expectations versus the realities of their job duties. More information regarding their environmental conditions in schools, administrative support for FCS programs; types of students in FCS classrooms; financial rewards; and other factors that affect job satisfaction, career maintenance, and professional development would be helpful. Mimbs (2000) found these issues to be key reasons why certified FCS teachers are not currently teaching. Further research on a larger scale of other practicing FCS educators on issues of job satisfaction, enthusiasm for and perceptions of the value of their work, and strategies for balancing family, parenting, homemaking, and other responsibilities with their teaching career is

recommended. More qualitative studies should be conducted as they can provide more authentic understanding and insight as evidenced by this study.

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BOOK REVIEW

Nickel and Dimed: On (Not) Getting By In America (2001). Ehrenreich, B. New York: Metropolitan Books. 221 pages. ISBN 0-8050-6388-9. $23.00 (hard cover).

Review by Desirae M. Domenico

Barbara Ehrenreich holds a Ph.D. in biology and is the author of several books including *Fear of Falling: The Inner Life of the Middle Class* (1990) and *The Mean Season: The Attack On the Welfare State* (1987). She frequently contributes articles to *Time*, *Harper's Magazine*, and *The New York Times Magazine*. In her latest book, *Nickel and Dimed: On (Not) Getting By in America* (2001), Ehrenreich demonstrates her commitment to understanding America's underclass workforce.

Ehrenreich's book examines how the millions of people who fill America's least attractive jobs, such as waitresses and housecleaners, manage to live on their meager salaries. She finds most of these jobs are physically and mentally exhausting. Employers overwork employees in return for low wages, few benefits, and minimal health care coverage. She notes that it is not uncommon for many Americans trapped in the low-wage workforce to juggle two or three jobs to make ends meet. In addition, each low-wage job advertised that no special skills were necessary. However, she discovers that each of these jobs requires some level of skill. For example, Ehrenreich had to learn how to operate the backpack vacuum cleaner while working as a maid and how to use touch-screen computers to correctly place orders while waitressing in Florida.

Ehrenreich's book contains five sections. In Section One, "Introduction: Getting Ready," she recalls discussing with editor Lewis Lapham how people live on wages earned from unskilled jobs. Ehrenreich conceded the best way to find out was to become one of the millions of employees in the low-wage labor force. Six jobs and three cities later, she compiled sufficient material to write *Nickel and Dimed*.

The goal of Ehrenreich's experiment was to relocate to a city, find a low-wage job and cheap housing, while attempting to match income to expenses for one month. The project began in spring, 1998 and concluded in the summer of 2000. Ehrenreich chose cities based on employment opportunities and the availability of affordable apartments. She established essential ground rules for the project: 1- skills gained from her education could not be used in her job search; 2- take the highest paying job offered; and, 3- live in the cheapest accommodations available. On occasion Ehrenreich bent each rule. In Florida, for example, she used her foreign language skills to greet German tourists with "Guten morgen" (good morning).

Ehrenreich reminds readers that she cannot fully experience the world of the low-wage worker because she possesses such securities as a house, a bank account, medical insurance, and good health. These luxuries are incomprehensible to the average low-wage worker. In addition, Ehrenreich only lives in each city for one month, giving her a limited view of a world that many middle- and upper class workers cannot fathom.

Section Two, "Serving in Florida," introduces readers into America's world of least attractive jobs. Ehrenreich begins her project in Key West. After finding sufficient housing she faces the grueling job application process. Applying for jobs such as a hotel cleaning lady and supermarket clerk, Ehrenreich finally settles on a waitressing job with starting pay of $2.43 per hour plus tips. As she becomes acquainted with her co-workers, Ehrenreich is shocked to learn

that many rent rooms nightly at hotels, live with several people in small apartments, or live in their cars. The lack of health care coverage further hampers these working people.

Ehrenreich quickly comes to the harsh realization that a second job is necessary in order to afford the rent payment. She accepts a second job as a hotel cleaning lady. Working two strenuous jobs with little sleep proves to be overwhelming, and this challenge lasts only one day. Exhausted, broke, and unable to afford rent, Ehrenreich closes this chapter of the project and sets her sights on the next city.

Ehrenreich travels up the coast to Portland, Maine for Section Three, "Scrubbing In Maine". She finds employment as a housemaid during the week, and on weekends she works as a nursing home aide. The low maid service pay of $5.00-$6.00 an hour for such heavy labor appalls Ehrenreich. She explains in detail the strenuous physical work of scrubbing floors on her hands and knees and vacuuming with the cleaner strapped to her back. Several of the cleaning ladies she meets suffer from various ailments, including backaches and arthritis. Unfortunately, their problems go untreated as none of them can afford medical insurance. The nursing home job is less strenuous, and Ehrenreich works steadily. Thinking she can afford another month's rent, a health issue that must be treated depletes her monetary funds. After four weeks of work, she departs Portland.

In Section Four, "Selling in Minnesota," readers find Ehrenreich in Minneapolis. This city is the final destination for her project. The unavailability of affordable apartments in Minneapolis stuns Ehrenreich, who is fortunate to be staying at a friend's apartment. Ehrenreich is eager for a job switch and decides to work as a salesclerk in the women's department of Wal-Mart. She learns the tricks of organizing the clothes by size, color, and brand, and occupies her spare time cleaning up the fitting rooms. She actively seeks a second job, but to no avail, and realizes once more that her Wal-Mart salary is not sufficient. Bored and irritated with this repetitive job, and almost out of money, Ehrenreich quits Wal-Mart and bids farewell to the city of Minneapolis.

In the last section of the book, "Evaluation," Ehrenreich reflects on her stint as a low-wage worker. She rates her performance as average- being capable of doing the work, learning the skills, and mastering the social interactions with people at each job site. Some days were great successes, such as finishing her cleaning tasks ahead of time, thus allowing her to assist the other women. Other days were complete disasters, such as the fiasco at a Florida restaurant where she quits in the middle of a shift. Still, Ehrenreich is proud of the fact that she kept up physically with her significantly younger co-workers. On the flip side, Ehrenreich was never able to match income to expenses in any city, although she came close in Portland. She credits this only to the fact that she worked two jobs seven days a week and was provided with free meals on the weekends. Her summation of the experience is simple: wages are too low and rent is too high.

Barbara Ehrenreich's *Nickel and Dimed* sheds new light on America's working poor. Her aim is to paint a true picture of what life is like in this world that so many people inhabit. Using her straightforward style of writing, Ehrenreich's book flows from chapter to chapter and is an easy read. Readers can appreciate her candidness as she learns more and more about the unskilled labor force. She states, "But I am realizing that, …one job will never be enough…. jobs are so cheap- as measured by the pay- that a worker is encouraged to take on as many of them as she possibly can" (p. 60). Trickling throughout her narrative are bits of humor, interspersed with Ehrenreich's vivid descriptions, some of which cause readers to cringe. For example, she writes of her job at a Florida restaurant, "…sinks everywhere are clogged with scraps of lettuce,

decomposing lemon wedge, water-logged toasts crusts…Put your hand down on any counter and you risk being stuck to it by the film of ancient syrup spills" (p. 30).

Ehrenreich cites various examples to provide support for her work. Referring to her Florida co-workers living in a car, Ehrenreich surmises, "I could find no statistics on the number of employed people living in cars or vans, but according to the National Coalition for the Homeless…nearly one-fifth of all homeless people…are employed in full-or part-time jobs" (p. 26). Evidence to support her claim that unskilled workers cannot make ends meet is presented in a footnote stating, "In 1996 the number of persons holding two or more jobs averaged 7.8 million…" (p. 45). Included throughout Ehrenreich's book are various facts gathered from the Fair Labor Standards Act, American Civil Liberties Union, and the National Labor Committee Education Fund.

Although Ehrenreich works tirelessly to provide readers with an accurate image of America's working poor, one visible weakness that frequently appears throughout the book is the reminder she can and will escape these hardships. She has the luxury of returning to her real life at any time, acknowledging, "When I sit down one morning in my real home to pay bills… I am dazzled by the two- and three-figure sums owed to outfits like Club Body Tech and Amazon.com" (p. 34). Such realizations further separate her from the working class she strives to fit into.

Nickel and Dimed accurately provides readers with a picture of what it is like to live and work in the low-income sector of society. However, Ehrenreich's claim that the people who work these jobs cannot survive is difficult to accept, for everyday millions of Americans do survive. Somehow they manage to find housing and feed themselves and their families. It is not an easy task, but these people get by as best as they know how. Although Ehrenreich stresses the need for change as far as the unskilled jobs and workers are concerned, sadly she offers no real solution to this problem.

<u>Evaluation</u>

I think Barbara Ehrenreich's *Nickel and Dimed* affords readers an image of how low-wage workers never get ahead on their meager salaries. However, her perceptions might be somewhat distorted since she only worked at each job for less than one month. I agree that these workers face numerous challenges when trying to support themselves and their families. Perhaps readers would benefit more if Ehrenreich focused on some of the people she actually met while on the job, such as the Florida hostess who lived in her van, or the cleaning woman who could only afford a small bag of Doritos for lunch.

I believe *Nickel and Dimed* is a valuable reference book for Family and Consumer Sciences teachers. It is crucial that teachers recognize the hardships and struggles associated with the low-wage workforce. By understanding the low-wage sector, FCS teachers can stress to students the importance of developing positive job skills to take into the workforce. Hopefully, the training FCS teachers provide will produce marketable students who can bypass the unskilled labor force for better paying jobs upon graduation.

Overall, I enjoyed reading *Nickel and Dimed*. The layout of the book was easy to follow and it allowed me to view a world about which I had no prior knowledge. Barbara Ehrenreich captured my attention from the introduction and held it until the last page. Her witty and clever writing style tweaked my interest in the plight of America's poor and I plan to stay abreast of her future publications.

About the Author

Desirae Domenico is a graduate student at The University of Georgia where she received her bachelors and masters. She is pursuing a doctorate degree in Occupational Studies. For two years, she taught Family and Consumer Sciences at Pebblebrook High School in Cobb County, Georgia.