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The City University of New York, Ph.D., 1974
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THE EFFECTS OF TWO SOURCES OF ROLE STRAIN ON WOMEN PHYSICIANS

by

Dalia Golan Ducker

A dissertation submitted to the Graduate Faculty in
Psychology in partial fulfillment of the requirements
for the degree of Doctor of Philosophy,
The City University of New York
1974

This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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Abstract

THE EFFECTS OF TWO SOURCES OF ROLE STRAIN ON WOMEN PHYSICIANS

BY

Dalia G. Ducker

Adviser: Professor Barbara Dohrenwend

Interviews were conducted with 93 women and 82 men physicians in four medical specialties. These specialties were selected to represent the various combinations of the two main sources of strain to be investigated: believed unsuitability of a field for women and specialty time demands. Beliefs about the suitability of fields for women were established empirically through questionnaires administered to male physicians on a medical school faculty. Time demands were determined from the literature. Using path analysis, neither of these two variables, nor any of the other sources of strain investigated, were found to have the expected results on the behavior and feelings of women physicians. An alternative model was suggested, emphasizing the need to take a longitudinal approach since whether or not a woman physician had ever been married or had children was found to be an important factor related to level of professional activity and feeling that personal life suffers. This factor was conceptualized in terms of degree of commitment to family and/or career rather than merely time allocation.

Acknowledgements

This research was supported by a National Science Foundation Dissertation Grant for which I am very grateful. I could not have undertaken a project of this scope without it.

There are many people I would like to thank for their help with this project, including Dr. Glenn Howze and Ms. Abenan Ghartey-Tagoe for their assistance with the computerized data analysis. I would also like to thank the members of my committee, Dr. Leonard Kogan and Dr. Arnold Simmel, for their valuable help and suggestions and Dr. Samuel Bloom whose early encouragement and assistance was invaluable in getting the project started. My special thanks go to my advisor, Dr. Barbara Dohrenwend, who spent many long hours with me, offering both help and encouragement. Her thoroughness and precise thinking have been an inspiration to me throughout our association.

I would also like to express my gratitude to my parents who taught me to value the pursuit of knowledge and encouraged me in my every endeavor. My greatest debt is to my husband Kenneth. His insights into the medical profession were always an invaluable aid. Beyond that, his continued confidence and faith in me, through many trying times, made this effort possible.

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Introduction

There is evidence that women are underrepresented in certain professional fields and that in these prestigeous male-dominated fields they do not participate as extensively in professional activities or achieve as high a level of professional success as their male colleagues. According to census figures, in 1970, only 1.7% of the engineers, 3.0% of the dentists, 4.8% of the lawyers, 8.9% of the physicians, and 28.5% of the college professors and instructors were women.

Evidence of lower levels of professional participation and achievement of success by women than by men professionals has been found in several fields. Rossi (1965) found that in science and engineering men worked a higher average number of hours per week than women. She also found that they were more likely than women to work for industry and to be self employed, the more prestigeous settings, and that in these settings they were more likely to be in managment positions. In their study of women with doctorates, Simon, Clark, and Galway (1967) found that in all fields a smaller percentage of women than men worked full-time. They also found that women with doctorates earned less than their male colleagues and that on the whole a smaller percentage of women than men reached higher rank

and received tenure. Bayer and Astin (1968) found that among people with doctorates in the sciences women had both lower academic ranks and lower salaries than men.

In her study of women lawyers, Epstein (1968) found that they were more likely than men to be in salaried positions, to work part-time, and to interrupt their careers. They also worked a smaller average number of hours per week than men and were less likely than their male colleagues to belong to prestigeous professional organizations and to hold offices and committee memberships in those to which they did belong. Shuval (1970) investigated the professional performance of dentists in Israel and found that women tended to see fewer patients, to work fewer hours, and to withdraw from practice more than men. They also did less journal reading, less consulting with colleagues, and participated less in professional meetings and conferences. Women also tended to have the patients regarded by their colleagues as the least prestigeous.

Research involving the medical profession has also found that women tend to be less active and successful than their male colleagues. In their investigation of physicians who had at one time in their careers worked in public health Kosa and Coker (1965) found that women worked for a shorter period than men in every position in their careers, that they worked in salaried positions more, that they worked part-time more, and that they interrupted their careers more. They also found that women did not

advance as high as men in their public health jobs and that they had less professional income than men in comparable positions.

Other studies have also found that a greater percentage of women than men physicians work part-time and interrupt their careers (Dykman & Stalnaker, 1957; Rosenlund & Oski, 1967). It has also been found that a greater percentage of women than men physicians have never worked and that a greater percentage hold salaried positions (Dykman & Stalnaker, 1957; Powers, Parmalee & Weisenfelder, 1967). There is further evidence that a smaller percentage of women are members of the American Medical Association and of specialty societies, have hospital appointments, and are members of honorary societies (Dykman & Stalnaker, 1957).

Role Conflict and Strain

One suggested reason for this low level of performance by women professionals is conflict arising from the various aspects of their professional roles. This conflict seems to be of two main types. The first type has to do with the cultural expectations about the fit between the stereotyped feminine characteristics and characteristics of competent professionals in certain fields. These norms define women as outsiders in professions which are thought to be unsuitable for them. The second type involves the time conflicts between the female and the professional roles. It includes the problems they face trying to combine the many demands associated with each of their statuses.

One way to explain the effects of these two types of conflict on the lives of women professionals is in terms of role strain. Goode (1960) defined strain as the felt difficulty in fulfilling role demands. Epstein, in her work on women lawyers (1968) and in her work on women professionals in general (1970), interpreted the concept more broadly. She used it to describe the feelings of women professionals which result from the problems they encounter in their various roles. She included the two main types of conflict described above: that due to culturally based disapproval of the combination of the female status and certain professional statuses and that due to the conflicting demands of the statuses of wife-mother and professional.

In this investigation, role strain will be used as a hypothetical construct, mediating the effects of conflict on the behavior and feelings of women professionals. It will not be measured directly, only through its effects on behavior and feelings. The two main sources of strain, the two types of conflict from the professional roles described above, will be observed separately and in combination, and an attempt will be made to separate their effects and to relate each to specific behavior and feelings.

Beliefs and Expectations of Male Colleagues

The first source of strain is the beliefs and expectations of male professionals about the suitability of certain fields for women. According to Epstein (1970),

women face problems that lead to role strain in certain professional fields due to two closely related normative processes: status set-typing and sex-typing. Merton (1957) defined a status as an institutionalized social position, and a status set as a complement of social statuses occupied by an individual. He postulated that status set-typing occurs when a class of persons shares a set of statuses and when it is considered appropriate that they do so. Epstein (1968) described how this concept is applied to the female sex status and the occupational status of lawyer and concluded that women lawyers encounter negative attitudes among their colleagues about the appropriateness of including this occupational status in their status set.

Sex-typing may be seen as a specific instance of status set-typing. Merton (Epstein, 1970) defined a sex-typed occupation as one in which a very large majority of those in it are of one sex and there is an associated normative expectation that this is as it should be. On the basis of her finding that in the law profession certain specialties, such as matrimonial or estate law, are considered more suitable for women lawyers, Epstein (1968) extended this concept to areas of specialization within professions. She concluded that in this type of situation the norms are held by members of the profession itself rather than by the public in general.

Other writers lend support to the idea that occupations

have become typed according to their supposed suitability for men and women. On the basis of her questionnaire study of business women Bird (1968) concluded that there is a "sex map of the working world" and that people in the business world have fixed ideas about whether jobs should be done by men or women. Other writers who have done research on other professions agree with this observation (Williams, 1950; Rossi, 1964, 1965). Goldberg (1968) established experimentally that female college students are able to categorize occupations on the basis of the degree to which they are associated with men and women.

Professional Time Demands

Most professions are very demanding, requiring a high level of commitment of time and energy. Bailyn (1964), in her discussion of working women, observed that professionals need uninterrupted spans of time to devote to their work, to the exclusion of other activities. In her work on professional women, Epstein (1970) also noted that persons engaged in professional activity are expected to channel a large proportion of their emotional and physical energy into their work and therefore need large blocks of uninterrupted time to devote to it. In addition, Holmstrom (1972), in her investigation of two-career families, also observed that a serious career required an expenditure of a great deal of uninterrupted time in which to devote full attention to work.

However, fields, and specialties in them, differ with

regard to the extent and regularity of time demands and with regard to the flexibility of these demands. Rossi (1965) observed that fields such as engineering, scientific research, and medicine, are generally sterotyped as having rigid demands which are incompatible with family responsibilities. Epstein (1970) discussed the differential flexibility of various occupations for women and concluded that certain professional positions allow for a great deal of flexibility which makes combining a family and a career easier, e.g. medical specialties with controlled hours, such as psychiatry. Homstrom (1972) observed that professional jobs differ in the amount of time required as well as in the type of time scheduling involved and that some fields provide greater opportunity for individual control over these than others.

The degree of demands in each field may not be rigidly established, however. Even in the more demanding fields there may be possibilities for innovative arrangements which allow for their reduction. Rossi (1965) contended that although the scientific professions are believed to be extremely demanding, there are possibilities for arrangements which limit some of these demands, for example salaried medical positions. Epstein (1970) also pointed out that in certain fields which traditionally have been thought of as having high time demands, there are possibilities for reducing the extent of these demands. She also cited taking a salaried position in a demanding

medical specialty as an example of such an arrangement.

Although the major source of time conflict for professional women is expected to result from their professional time demands, the conflict is expected to be aggravated by the nonprofessional aspects of their lives, due to the norms in our society surrounding these roles. These include family time demands and leisure time commitments.

Family Time Demands

Women who marry and have children acquire a large number of additional roles, with many demands on their time and energy. In her analysis of the situation facing professional women, Epstein (1970) concluded that the American conjugal family system heavily weights the obligations of the woman's roles in the family. These obligations of the wife-mother roles are rigorously demanding as well as constant and repetitive. They include the primary responsibility for managing the household as well as doing most of the actual work. These demands are increased by child-rearing responsibilities which create intense demands for women and bring with them an extended role network with additional duties and responsibilities, e.g. meetings at schools, taking the child to the doctor, etc.

The demands associated with the family roles for women are assumed to be both large and primary in our society and therefore produce conflict for women professionals. Coser and Rokoff (1971) described this conflict as a conflict

of normative priorities. They suggested that:

> The conflict experienced by professional women who have a family, and anticipated by young women planning their future, stems not simply from participation in two different activity systems whose claims on time allocations are incompatible. The conflict derives from the fact that the values underlying these demands are contradictory: professional women are expected to be committed to their work 'just like men' at the same time as they are normatively required to give priority to their family (p. 535).

Thus, they concluded that women have a cultural mandate to give priority to the family, so that even when working they are expected to be committed to their family first and to their work second.

An indication that a potential conflict exists between family and professional demands is the evidence that as compared to their male colleagues a smaller percentage of women professionals have ever been married, a smaller percentage have children, and those that do have children have a smaller average number. Simon, Clark, and Galway (1967) report that in their sample of recent Ph.D.'s, women were much less likely than men to be married. Also, a smaller percentage of the married women than men had children. Astin (1969), in her investigation of women with doctorates, reported similar findings. Perrucci (1970) concluded that women in engineering and science were less likely to be married than their male colleagues and that they married and had children later.

There have been similar findings in the medical profession. Dykman and Stalnaker (1957) and Rosenlund and

Oski (1967) found that a smaller percentage of women than men physicians were presently or formerly married and that those who were married had a smaller average number of children. Rosenlund and Oski (1967) also found that a smaller percentage of women than men physicians had children. There is also evidence that a smaller percentage of women than men physicians had children before the end of their medical education and training (Dykman & Stalnaker, 1957; Powers et al., 1969; Rosenlund & Oski, 1967). Other studies concerning proportions of women physicians who are married, who are divorced, and who have children consistently yield similar figures (Platt, 1951; Pullman, 1963; Schneider, 1954; Shapiro, Stible, & Zelkovic, 1968; Thelander & Weyrauch, 1952; Westling-Wilkstrang, Monk, & Thomas, 1970; Williams, 1971).

It has also been found that professional activity among women professionals is related to marital and family status. Simon, Clark, and Galway (1967) found that in science and engineering while men had the highest percentage of full-time workers, they were followed by unmarried women, then by married women without children, and finally by married women with children. Astin (1969) found that a greater percentage of married than single women with doctorates worked part-time and that having children was the greatest deterrent to working full-time. Women who were married and had children were also found to be less likely to publish professional work.

These findings are true for the field of medicine as well. On the basis of a study of physicians, Dykman and Stalnaker (1957) concluded that in most professional characteristics single women occupied a position between married women and men, but were more similar to other women. This conclusion was based on such measures as number of hours worked, participation in voluntary activities, participation in professional societies, and number of scientific publications. Other researchers have also found differences between the career patterns of married and single women physicians. A greater percentage of single women have been found to have research appointments (Powers et al., 1969; Schneider, 1954; Thelander & Weyrauch, 1952). On the other hand, a greater percentage of married than single women have been found to be in salaried positions (Schneider, 1954).

There is further evidence from the medical profession that professional activity is related to number of children. Schneider (1954) found that single women and married women without children showed a greater proportion actively engaged in medicine, and as the number of children increased the proportion in full-time practice decreased. This finding was confirmed by Powers, Parmalee, and Weisenfelder (1969), Westling-Wikstrand, Monk and Thomas (1970), and Williams (1971) who also found that the number of hours of medical activity by women physicians was directly related to family size.

These findings which seem to indicate that married women, especially those with children, have greater difficulty in combining their professional and home lives than unmarried women, are borne out by the types of reasons women give for cutting down on or interrupting their work. Simon, Clark, and Galway (1967) found that when questioned about why they were not employed, a majority of the women scientists and engineers explained that they were raising their children. Women in the study who worked part-time rather than full-time said that they wanted it that way so that they would have more time for their children and homes.

In studies of women physicians, most researchers found that reasons for reducing professional activity primarily involved areas such as pregnancy and responsibilities and problems related to home and family, especially young children (Dykman & Stalnaker, 1957; Powers et al., 1969; Pullman, 1963; Schneider, 1954; Shapiro et al., 1968; Thelander & Weyrauch, 1952). In addition, Williams (1971) found that when women physicians were asked to describe times when they felt tempted to leave medicine, the most frequent problems cited by married women were those related to combining marriage and a career. The "critical periods" most often involved the birth of a child, obtaining adequate household help, caring for children, and stressful relations with husband. The most frequent resolution of these problems was to

reduce career demands by working fewer hours or by switching to a less demanding specialty, followed in frequency by withdrawing completely from professional life.

Leisure Time Commitments

Although they may not be as great or as compelling as the time demands of the profession or of the family, various leisure time activities in which women are involved also put demands on their limited resources. According to Epstein's (1970) analysis of the lives of professional women, these include some obligations which are related to the wife and mother roles, e.g. entertaining professional colleagues, socializing with mothers of children's friends, or even participating in civic activities. They also include purely recreational activities such as gardening or bowling.

An indication that a problem exists comes from the discussions of professional women which describe leisure time commitments of various kinds as drains on their limited resources. Rossi (1964) observed that due to the many demands on professional women, many things have to "give," including volunteer and social activities, gardening, and entertaining. On the basis of her investigation of women lawyers, Epstein (1968) concluded that professional women must allocate their time among the many conflicting demands of their various roles. This involves making choices and adjustments in almost every sphere of their lives, including the amount of time spent

on nonprofessional activities. Thus, she found that the women lawyers in her study often reduced the number of social relations they were involved in and the number of nonprofessional organizations they belonged to in order to cut down on the demands on their time and energy. When this was not done, the women had to reduce their involvement in their professional activities.

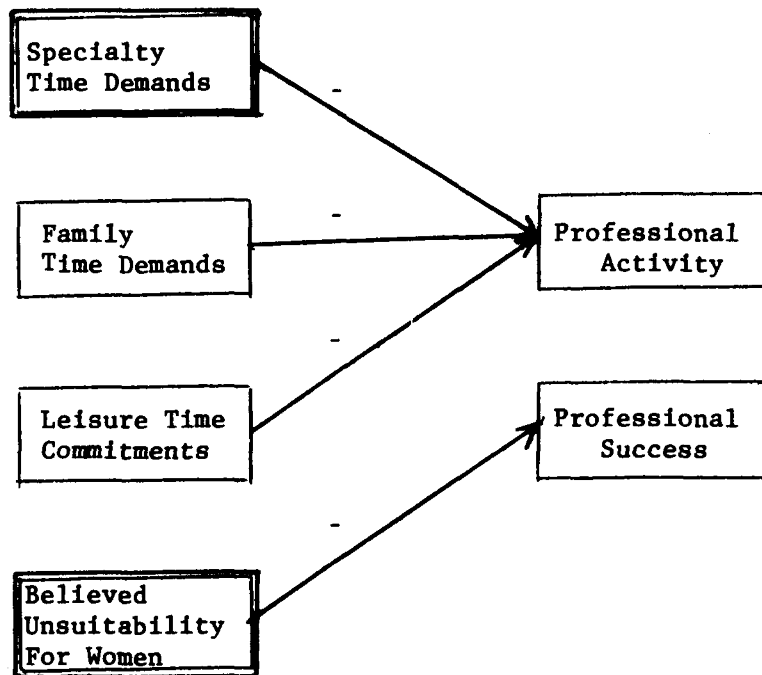
Predicted Effects for Women

Figure 1 presents the expected significant relationships between the sources of strain and the measures of behavior and feelings for women to be studied in this investigation. Part A includes the predicted relationships between the sources of strain and the behaviors; part B includes those between the sources of strain and the feelings; and part C includes those between the behaviors and the feelings. Plus signs indicate that a positive relationship is expected, and minus signs that a negative one is expected.

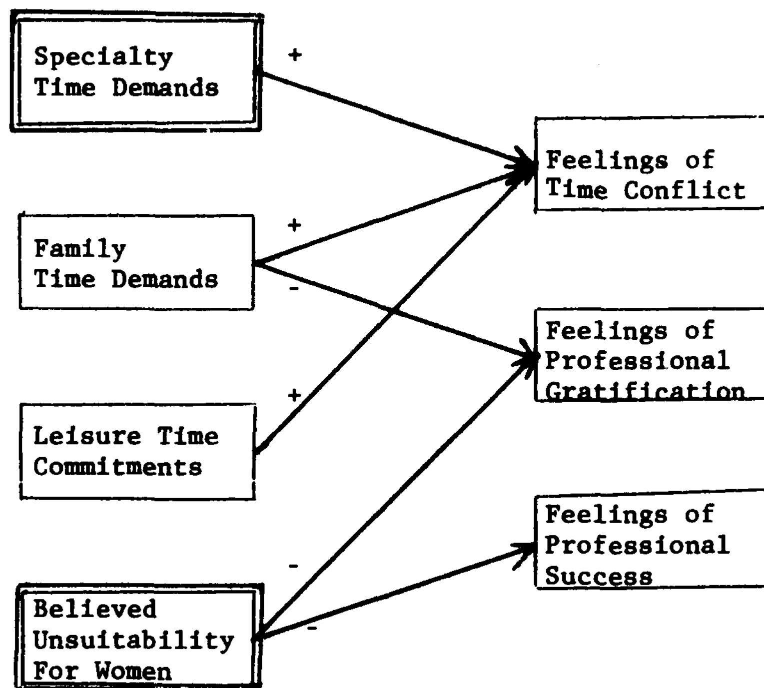
Consequences of Believed Unsuitability

As discussed above, one of the major sources of conflict, and therefore strain, for women professionals is the belief by male professionals that a field is unsuitable for women. This source of strain is expected to have consequences for both the behavior and feelings of women. Specifically, it is predicted that the belief that a field is not suitable for women will have a negative effect on

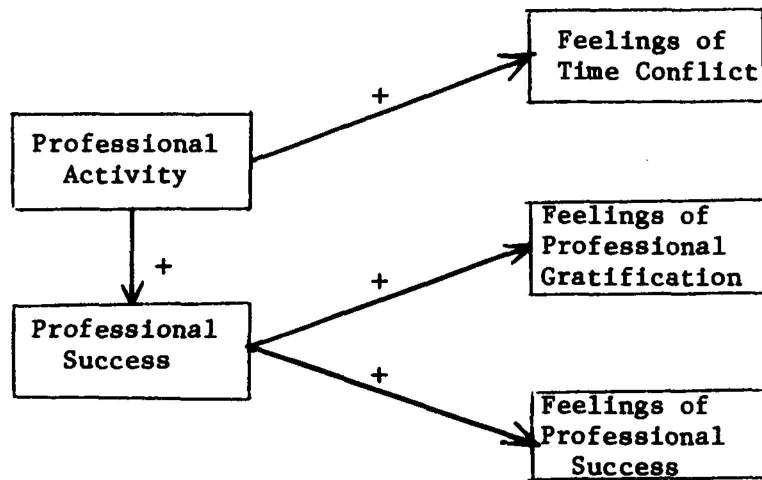
Figure 1. Expected direct effects for women physicians, with original variables (+ indicates a positive relationship; - indicates a negative relationship).



Part A. Expected effects of sources of strain on professional activity and success. (Double lines indicate the two variables conceptualized as the main sources of strain.)



Part B. Expected effects of sources of strain on feelings of time strain, professional gratification, and success.



Part C. Expected effects of professional activity and success on feelings of time strain, professional gratification, and success and of professional activity on professional success.

both professional success and feelings of professional success.

The expected link between the belief by men that a field is not suitable for women and women's ability to achieve professional success in that field is based on Goode's (1957) analysis of professions as communities which try to control the behavior of their members. According to Epstein (1968; 1970), in male dominated fields women's sex status becomes salient. As a result, male colleagues expect their behavior to be unpredictable and feel that they cannot be trusted. Since they do not expect women to conform to the norms of the profession, men create a professional context which makes women's high level performance difficult. This is achieved not only through deliberate discrimination but also through more subtle efforts to exclude women from access to many of the informal channels of information exchange and networks of communication which are essential to success.

The belief by men that a field is not suitable for women is expected to affect not only the level of professional success achieved by women in that field, but also their own feelings of being successful. This prediction is based on the belief that women who must function in a professional environment where colleagues do not believe that they belong will perceive these attitudes and come to feel that their colleagues do not believe them to be as competent as men in the field. They may even begin to apply

this judgment to themselves and begin to feel less competent.

Consequences of Time Demands

Professional time demands. The other major source of strain for women professionals is professional time demands. It is also expected to influence both behavior and feelings. Specifically, it is predicted that professional time demands will have a negative effect on professional activity and a positive effect on feelings of time conflict. The predicted relationship between professional time demands and level of professional activity is based on the assumption that although everyone has a finite amount of time and resources, for women professionals these are especially limited because of the societal norms which make the demands of the family roles great in size and importance for women and therefore impose competing demands on their time.

Besides affecting professional activity, professional time demands are also expected to influence feelings of time conflict. This prediction is based on the belief that the conflicts caused by the conflicting time demands of the professional and family statuses, coupled with the conflicting normative priorities, lead to feelings of not having enough time and of having to neglect certain areas of activity.

Family time demands and leisure time commitments. These sources of strain are expected to have consequences which supplement those of professional time demands. Like professional time demands, they are predicted to have a negative effect on professional activity and a positive effect on

feelings of time conflict. The predicted effect on level of professional activity is based on the assumption that women have a definitely limited amount of time to devote to their various activities and that the more they spend on one area, the less they will have for others. The expected relationship with feelings of time conflict follows from the belief that if women are constantly faced with these conflicting demands and the need to make choices between them, they will come to feel that they do not have enough time to do all they want and that certain aspects of their lives must suffer.

Consequences of Professional Activity and Success

Although each of the two main sources of strain from women's professional lives are expected to influence each of the different types of behaviors and feelings of interest, these behaviors and feelings are also expected to be interrelated. One predicted relationship is that level of professional activity will have a positive effect on amount of professional success. This is based on the belief that attainment of signs of prestige and rewards from colleagues is dependent, to some extent, on extent of contributions to the field, so that the greater the time and effort put into professional activities, the greater the chances of success.

Level of professional activity is also expected to have a positive effect on feelings of time conflict. This prediction is based on the belief, explained above, that professional women have many demands on them which lead

to conflict, and that one of the ways this conflict is manifested is in the feelings by these women that they just don't have enough time and that certain aspects of their lives suffer as a consequence. It is also expected that amount of professional success will have a positive effect on feelings of professional success. This is based on the belief that to the extent that women professionals attain the signs of respect from their colleagues, they will feel that they are doing well and are well thought of in their profession.

Combined Effects

Gurin, Veroff, and Feld (1960) have found that feelings of psychological well-being are influenced by both satisfactions and frustrations in life experiences. This finding can be applied to the specific area of feelings of gratification from professional work. In this situation, satisfaction with the profession for women is expected to be derived from professional success, while frustration with the profession is expected to be due to tensions, problems, and concerns arising from the two major sources of strain: believed unsuitability for women and conflicting professional time demands. Therefore, all three factors are expected to influence feelings of professional gratification, but in opposite ways. Professional success is predicted to have a positive effect on feelings of professional gratification while believed unsuitability and professional time demands are

predicted to have negative effects on it.

Predicted Effects for Men

The expected significant relationships for men to be studied in this investigation are shown in Figure 2. These expected effects are very different from those expected for women. First, no fields are believed unsuitable for men and therefore that factor is eliminated as a possible source of strain. Second, two of the types of time demands for women, family time demands and leisure time commitments, are also not considered as possible sources of strain for men. These exclusions are based on the belief that men do not have to deal with the same constraints on their time which face women due to the normative priority that family responsibilities have for them.

Specialty time demands is the only source of strain retained for men, and it is expected to have the same effects on level of professional activity and feelings of time conflict as for women. This is based on the belief that while men do not have all the constraints on their time that women do, they still have some limits. Therefore, if a specialty is expecially demanding, they won't have the time or energy for many other professional activities and they will begin to experience a feeling of time conflict. Professional activity is expected to have the same effect on professional success as for women and professional success is expected to have the same

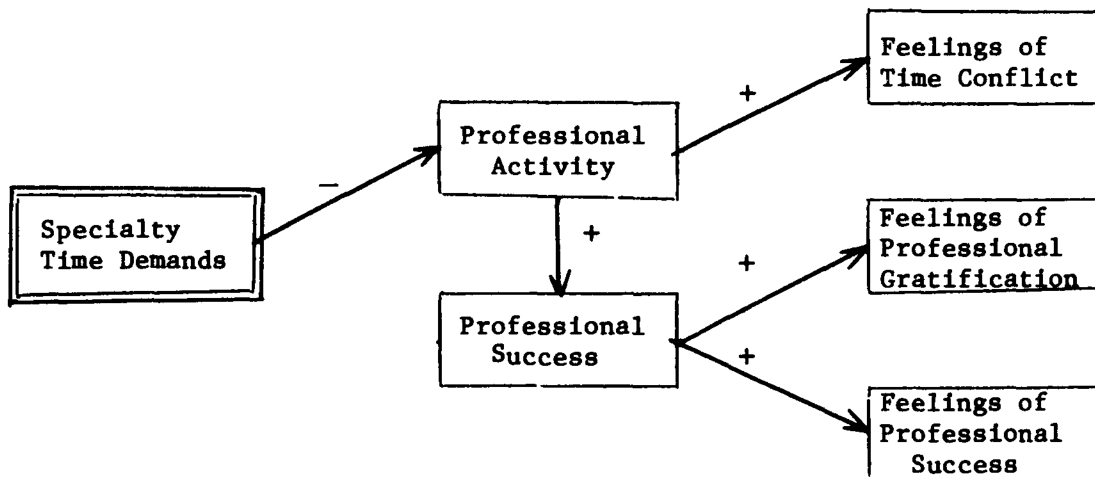


Figure 2. Expected direct effects for men physicians, with original variables (+ indicates a positive relationship; - indicates a negative relationship).

effect on feelings of professional gratification and success as for women.

Method

Use of Medical Specialties

In order to test the hypotheses derived from the role strain model it is necessary to find professional fields which meet two criteria. First, these must be fields where the two major sources of conflict can be found in their four possible combinations. Second, these fields must be as homogenous as possible with regard to other possibly related variables, such as level of ability and motivation.

Medical specialties meet these two criteria. First, the various medical specialties seem to represent combinations of the two sources of strain described above. In 1965 women constituted 6.1% of all the physicians in the United States. However, while they represented 21.3% of the child psychiatrists, 19.3% of the pediatricians, 17.6% of the public health doctors, and 11.7% of the psychiatrists, they were only 3.3% of the opthalmologists, 1.1% of the otolaryngologists, 0.9% of the general surgeons, and 0.5% of the orthopedists (American Medical Women's Association, 1968).

Part of the reason for the uneven distribution is suggested by the published recommendations of leaders in the medical profession concerning specialization by women physicians (American Medical Women's Association, 1968). Their statements that women should take two main factors

into account in choosing a specialty imply two main types of conflict for women physicians. They recommend some fields because of special abilities, traits, and interests attributed to women which supposedly make them better qualified for these specialties. Since these recommendations are based on a stereotype of special aptitudes of women, they imply the possibility of disapproval and even discrimination against women who enter fields that do not suit these stereotyped aptitudes. Evidence of similar beliefs about the suitability of certain medical fields for women have also been reported by Williams (1950) and Lopate (1968).

Other medical specialties are recommended for women because the lack of demands in terms of time commitments are thought to be compatible with the wife and mother roles (American Medical Women's Association, 1968; Lopate, 1968; Williams, 1950). And, in fact, there is evidence that the extent of the professional time demands do differ among the various medical specialties. The nature of the time demands has been reviewed by Lopate (1968) and Beshiri (1969) who concluded that some fields are more compatible with the demands of the wife and mother roles than others, especially with regard to flexibility and regularity of hours.

With regard to the second criterion, mentioned previously, physicians are a relatively homogeneous group, high in intellectual abilities and level of motivation.

Therefore, it is likely that failure to perform adequately or to achieve success in their profession is due at least in part to circumstances with which they must deal rather than to gross lack of ability or initial motivation and that differences among the specialties on these variables are due, at least in part, to differences in these circumstances.

The design of this study calls, then, for sampling men and women physicians from four medical specialties, selected on the basis of the two sources of conflict for women from their professional roles; one field in which conflict is present from both sources, one in which it is absent from both sources, one in which it is present from believed unsuitability only, and one in which it is present from specialty time demands only.

Determining Specific Specialties to Represent Each of the Four Conditions

Believed unsuitability. Since evidence about believed differential suitability of medical specialties for women is mostly antecdotal and inferential, this study included an empirical investigation of these attitudes. A systematic sample of 84 male, American educated physicians, on the faculty of the Mount Sinai School of Medicine responded to a questionnaire to determine their attitudes about the suitability of various medical specialties for women physicians. The decision to use this faculty sample was based on the assumption that these physicians are both well

socialized and important influences on norms in the field. Respondents were selected on a random basis from lists of physicians in the following six departments: medicine, surgery, pediatrics, psychiatry, obstetrics-gynecology, and community medicine, and also from the smaller departments grouped together as the "nine to five" specialities. Twelve physicians were interviewed in each of these seven groups.

Respondents were asked to fill out a questionnaire presented in Appendix 1. It involved rating each of 20 specialties on a seven point scale, ranging from "highly recommended" to "not highly recommended" with regard to women. The specialties used were selected from the list of departments in the school catalogue and were arranged in random order.

In order to secure their cooperation, respondents were first contacted by a letter signed by a member of the Department of Community Medicine of Mount Sinai School of Medicine. This letter is presented in Appendix 2. This was followed by a phone call by the investigator to set an appointment. In order to insure a high rate of completion the questionnaires were filled out in the presence of the investigator at a time and place convenient to the respondent. The overall proportion of attempted interviews which were successfully completed was 82.4%. The highest proportion for any group was 92.3% for medicine, and the lowest was 75.0% for psychiatry. These proportions are presented in

Table 1.

These ratings were analyzed with a mixed effects two way analysis of variance with field rated being the fixed effect and field of rater being the random effect (Winer, 1962, pp. 299-301). As expected, field rated was a significant main effect, field of rater was not, and the interaction was not significant. These results are presented in Table 2. The field most highly recommended for women was child psychiatry, followed by pediatrics, psychiatry, and anesthesiology. The field receiving the lowest recommendation was urology, followed by orthopedics, neurosurgery, and general surgery. Otolaryngology and administrative medicine were also given relatively low ratings. Although they were slightly above the midpoint of the scales, these ratings differed significantly from those of the 14 fields rated above them according to a Tukey (A) test used to test differences between ordered pairs of means (Winer, 1962, p. 87). The 20 fields rated and their mean ratings are shown in Table 3, arranged according to how highly they were recommended for women, with brackets indicating fields having significantly different ratings.

Specialty time demands. The time demands involved in each of the medical specialties have been classified by Lopate (1968) and Beshiri (1969) on the basis of the flexibility and regularity of their hours and therefore their compatibility with the female-status related roles. Among those considered to be essentially "nine to five" and

TABLE 1

Proportion of Attempted Interviews Which Were Successfully Completed for Physicians on Staff of Mount Sinai School of Medicine

Specialty	Number Interviewed	% Interviewed
Medicine	12	92.31
Surgery	12	80.00
Pediatrics	12	80.00
Psychiatry	12	75.00
Obstetrics-Gynecology	12	85.71
Community Medicine	12	85.71
"Nine to Five"	12	80.00
Overall	84	82.35

TABLE 2

Analysis of Variance for Ratings of Specialties

Source	SS	df	MS	F
Specialty of rater (A)	86.03	6	14.34	1.27
Specialty rated (B)	2,642.62	19	139.08	94.81*
A X B	142.08	114	1.25	0.90
Subjects within groups	871.61	77	11.32	
B X Subjects within groups	2,144.79	1,463	1.47	

*$p < .01$

TABLE 3

Ratings of Approval of Specialties for Women Physicians

Rank	Specialty	Mean Rating*
1	Child psychiatry	6.23
2	Pediatrics	6.04
3	Psychiatry	5.95
4	Anesthesiology	5.94
5	Community medicine	5.86
6	Dermatology	5.84
7	Rehabilitation medicine	5.79
8	Radiology	5.65
9	Pathology	5.62
10	Ophthalmology	5.48
11	Family medicine	5.44
12	Neurology	5.30
13	Internal medicine	5.26
14	Obstetrics-gynecology	5.24
15	Administration medicine	4.85
16	Otolaryngology	4.24
17	Surgery	2.94
18	Neurosurgery	2.73
19	Orthopedics	2.65
20	Urology	2.15

*Brackets indicate that the upper specialty differs from the lower specialty and all those below it at a significance level of .05 according to a Tukey (A) test.

therefore low in demands are: dermatology, ophthalmology, pathology, psychiatry, neurology, public health, radiology, administrative medicine, otolaryngology, and rehabilitation. Among those considered to involve many emergencies and long unpredictable hours and therefore to be high in demands are: general surgery, internal medicine, anesthesiology, obstetrics-gynecology, pediatrics, and various surgical subspecialties, including orthopedics, neurosurgery, and urology.

Choice of the four specialties. Four fields were selected as representing the four conditions of strain to be studied. Psychiatry was chosen as a field in which both sources are absent, pediatrics as one in which believed unsuitability is absent but conflicting specialty time demands are present, otolaryngology as one in which believed unsuitability is present and conflicting demands are absent, and surgery as one in which both sources are present. The four conditions and the fields which represent them are presented in Table 4.

Sample of Male and Female Physicians

In order to study the relationships among the variables of interest a systematic sample of male and female physicians in each of these four specialties were interviewed. Respondents were selected from the Directory of Medical Specialists (1970). The decision was made to use board certified specialists to insure that all respondents were committed to a particular field and exposed to the demands and norms of that field. In order to control for generational

TABLE 4

Specialties Representing Different Sources of Strain For Women Physicians

	Strain Due to Conflict Between Time Demands of Professional Roles and Demands of Wife and Mother Roles	
Strain Due to Believed Unsuitability for Women	Present	Absent
Present	Surgery	Otolaryngology
Absent	Pediatrics	Psychiatry

differences in professional patterns and differences due to stage of life cycle, respondents were matched across fields and sexes by age by dividing each group into those under 50 and those 50 and over, on the basis of year of birth listed in the Directory.

Since women otolaryngologists were found to be rare, a nationwide sample was used. All the American born women listed as board certified otolaryngologists were selected. To avoid excessive expense, respondents in the other groups were drawn from a narrower geographic area, however. Since they were the smallest of the remaining groups, women in surgery were used as a basis for decisions about states used and percentage of respondents in each of the two age groups. A sufficient number of women surgeons were found in Connecticut, Maine, Maryland, Massachusetts, New Jersey, New York, Vermont, and Washington, D. C., and therefore physicians in other groups were selected from these states as well. Also, 63% of the women surgeons were under 50, and 37% were 50 and over, and as a result the same proportions were used in selecting respondents in the rest of the sample.

Excluding physicians who were disqualified because they were of the wrong sex or foreign born or who were eliminated because they could not be found, had moved, or were dead, the overall proportion of attempted interviews which were completed successfully was 71.4%, 72.6% for women and 70.1% for men. Table 5 shows the percentage of

TABLE 5

Proportion of Attempted Interviews Which Were Successfully Completed for Eligible Physicians By Age, Sex, and Specialty

	Specialty			
	Surgery %	Pediatrics %	Otolaryngology %	Psychiatry %
Age	Men			
Under 50	65.00	68.42	73.68	77.77
50 and over	66.67	72.72	66.67	54.54
Total	65.62	70.00	71.43	68.97
(Number Interviewed)	(21)	(21)	(20)	(20)
	Women			
Under 50	82.35	83.33	77.77	66.67
50 and over	81.81	85.71	52.33	66.67
Total	82.14	84.38	53.33	66.67
(Number Interviewed)	(23)	(27)	(15)	(28)
	Overall			
Total	73.33	77.42	67.70	67.60
(Number Interviewed)	(44)	(48)	(35)	(48)

physicians contacted in each field who were actually interviewed according to sex and age. All together 175 physicians were interviewed, 93 women and 82 men. Table 6 shows the sex and age distributions of these physicians according to field.

Procedure

To secure cooperation, respondents were initially contacted by a letter signed by the investigator saying that this was a study being conducted under the auspices of the Center for Social Research of the City University of New York whose purpose was to study physicians in various specialties. This letter is presented in Appendix 3. They were then contacted by phone for an appointment for a more extensive interview. An average interview lasted 25 to 30 minutes. The interviewing was done by eight female interviewers, including the investigator. Respondents were assigned to interviewers on a random basis. Telephone interviews were used for two reasons: a larger sample could be obtained than with face to face interviews and a higher response rate could be obtained than with mail questionnaires.

When a physician refused to participate and raised specific questions, another letter was sent. This usually included more information about who was doing the study, what it was about, and what the results would be used for. A sample of this letter is presented in Appendix 4. This was followed by another phone call to try to arrange an

TABLE 6

Distribution of Physicians Interviewed

By Age, Sex, and Specialty

	Specialty			
	Surgery %	Pediatrics %	Otolaryngology %	Psychiatry %
Age		Men		
Under 50	61.90	61.90	70.00	70.00
50 and over	38.10	38.10	30.00	30.00
(n)	(21)	(21)	(20)	(20)
		Women		
Under 50	60.87	55.56	46.67	53.57
50 and over	39.13	44.44	53.33	46.43
(n)	(23)	(27)	(15)	(28)

interview. When physicians said they were too busy or not interested, or if they would not even come to the phone, a letter signed by a faculty member in the Community Medicine Department of Mount Sinai School of Medicine was sent, and followed by another phone call. This letter is presented in Appendix 5. If the physician again refused, no further attempt was made to obtain cooperation.

The interview used is presented in Appendix 6. It focused mainly on five areas: participation in professional activities, achievement of professional success, feelings of time conflict, feelings of professional gratification, and feelings of professional success. Questions were also asked on participation in nonprofessional activities and other leisure time commitments, family time demands, and certain background and demographic characteristics. When a physician did not have time for a complete interview, a shortened form was used, including only the questions on professional activities, achievement of professional success, and background information.

Path Analysis

Since this investigation included a model with hypothesized causal relations, the main method of data analysis used was path analysis. Kerlinger and Pedhazur (1973) describe path analysis as a method for studying the direct and indirect effects of variables taken as causes on variables taken as effects in a specific model. Decisions about which variables are expected to be causes

and which are expected to be effects may be based on theory or on past research in the area. These relationships may be represented in two ways: path models and diagrams. A path model is a set of structural equations representing the postulated causal and noncausal relationships among the variables under consideration. A path diagram is used to display graphically this proposed pattern of causal relations, as in Figures 1 and 2.

The variables in a model are either exogenous, endogenous, or residual. Exogenous variables are those whose variability is assumed to be determined by causes outside the causal model. Endogenous variables are those whose variation is explained by other variables, either exogenous or endogenous, in the system itself. Residual variables are used to indicate the effects on endogenous variables of variables not included in the model. For convenience they may not be represented in the actual diagram.

The application of this method of analysis is based on four major assumptions about the data: (1) relations among the variables in the model are linear, additive, and causal; (2) residuals are not correlated among themselves, or with the variables in the system; (3) there is a one-way causal flow in the system; and (4) the variables are measured on an interval scale.

The direct effects of the variables assumed to be causal are measured in terms of path coefficients. A path

coefficient is defined by Land (1969) as a measure of the fraction of the standard deviation of the endogenous variable (with the appropriate sign) for which another variable is directly and uniquely responsible. The solution for the path coefficient takes the form of the least squares solution for beta, i.e. the standardized partial regression coefficient.

Using this method, within a given causal model, it is possible to determine what part of a correlation between two variables is due to the direct effect of a cause and what part is due to its indirect effects, through its correlation with the other variables in the system. Thus, the correlation between two variables taken as cause and effect can be divided into the direct effect and the total indirect effects.

Results

Scale Construction

Scales were designed to measure the following variables:

Leisure time commitments

Professional activity

Professional success

Feelings of time conflict

Feelings of professional gratification

Feelings of professional success

The alpha coefficient which is a function of the average intercorrelation among items (Cronbach, 1951) was used to measure the internal consistency of the scales and to determine whether they should be retained or revised. An alpha score of at least .50 was chosen as the criterion for deciding whether or not to retain a scale in its existing form.

The original scale for leisure time commitments includes answers to questions on:

Number of hobbies

Number of times a month entertain

Number of times a month go out

Number of memberships in nonprofessional organizations

Number of offices held in nonprofessional organizations

The alpha coefficient was .34. Attempts to revise the scale to attain a higher level of internal consistency failed, and

it was decided to use three separate measures instead of one. One measure was based on the number of hobbies. The second measure was obtained by rescoring and combining the responses to the questions on number of times a month entertain and go out and was called a measure of socializing. The third measure was formed by rescoring and combining responses to the questions on number of professional memberships and offices and was called a scale of nonprofessional organizational activities. All three scales were scored zero to three on the basis of which quartile the responses fell into in the overall distribution of answers.

The scale for professional activity included questions on:

Number of hours a week worked
Number of hours a week did volunteer work
Number of journal club meetings attended per month
Number of professional conventions attended per year
Number of professional papers presented
Number of journals read regularly
Number of professional articles published
Number of memberships in professional organizations
Number of books written or contributed to
Number of career interruptions

The replies to each item were scored zero to three, on the basis of which quartile they fell into in the overall distribution of answers to each question. The scores for each question were then added to get a scale score. The

alpha coefficient for this scale was .68, sufficiently high to retain the scale in its original form without any revisions.

Professional success was measured by a scale which included items on:

Number of honors and awards received

Number of guest lectures given

Number of professional offices held

Number of editorial board positions held

Items were also scored zero to three on the basis of the distribution and then added to obtain scale scores. This scale presented a special problem. The alpha coefficient was only .40, and several attempts to revise the original scale by adding and dropping items failed to raise it. Since the four item scale did not naturally divide into obvious subscales, it was decided to retain the scale in its original form, with the reservation that there were definite unresolved problems with it as a measure of professional success but that it was the best that could be done with the questions asked.

The scale for feelings of time conflict included two items: feeling that personal life suffers and feelings of not having enough time. Responses to each item were scored zero to three and added to obtain a scale score. The alpha coefficient was .43. Since it was below .50, and there were only two items, so no revisions were possible, it was decided to break the scale into two seperate measures:

feeling that personal life suffers and feeling of not having enough time.

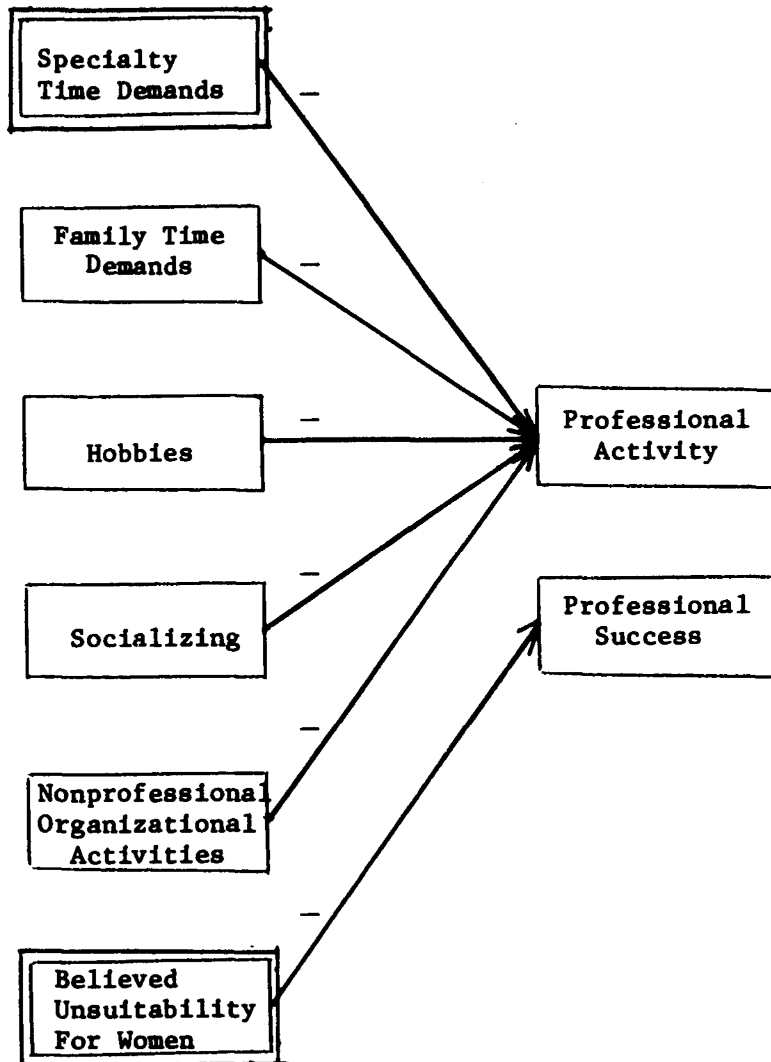
Feeling of professional gratification was measured by a two item scale including questions on happiness with work and regrets about choice of specialty, with scores ranging from zero to three for each. This was another two item scale whose alpha coefficient, .34, was below the acceptable level. As a result, the scale was split into two separate measures: happiness with work and no regrets about choice of specialty.

The scale for feelings of professional success included two items, with scores of zero to three on each: rating of own ability relative to professional colleagues and rating of perceived respect of professional colleagues. This scale had a satisfactory alpha coefficient of .63.

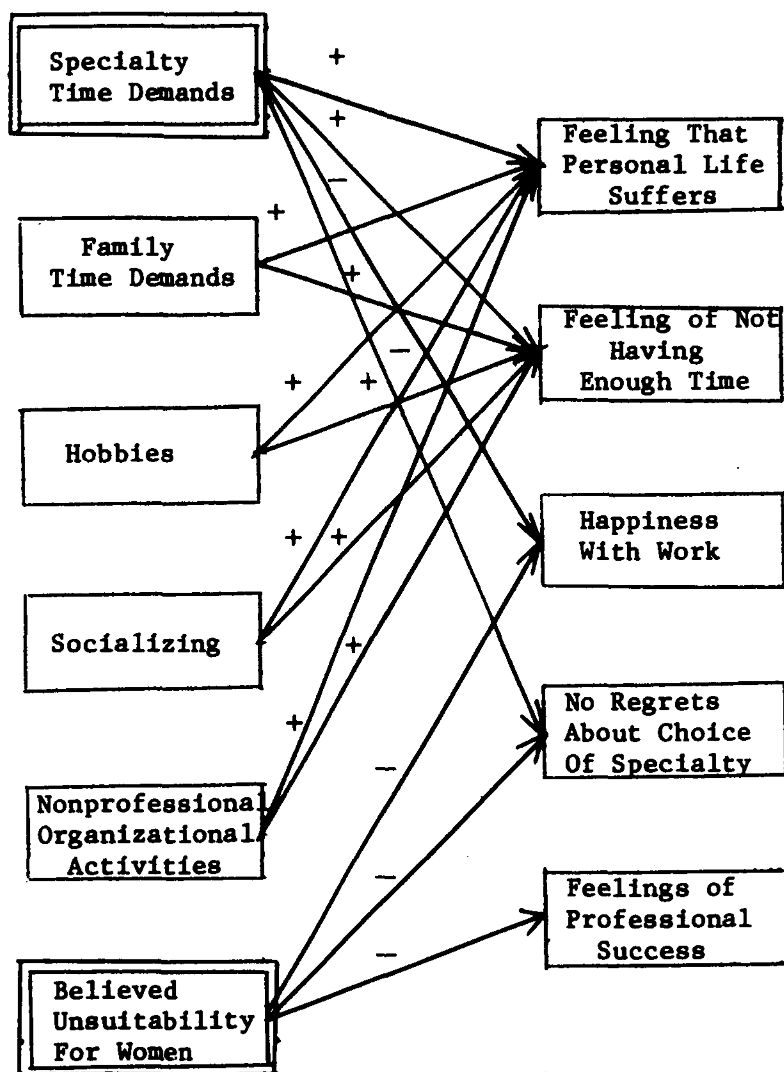
Family time demands was another variable measured, but no scale was used for it. The answers to questions on marital status and presence of children in the home were each scored one or two and combined to obtain a score.

On the basis of these revisions, the components in the models originally proposed had to be changed. The revised models for women and for men, with the new measures in them, are presented in Figures 3 and 4. In these new models there are six rather than four exogenous variables: believed unsuitability for women, specialty time demands, family time demands, hobbies, socializing, and nonprofessional organizational activities. The number of endogenous

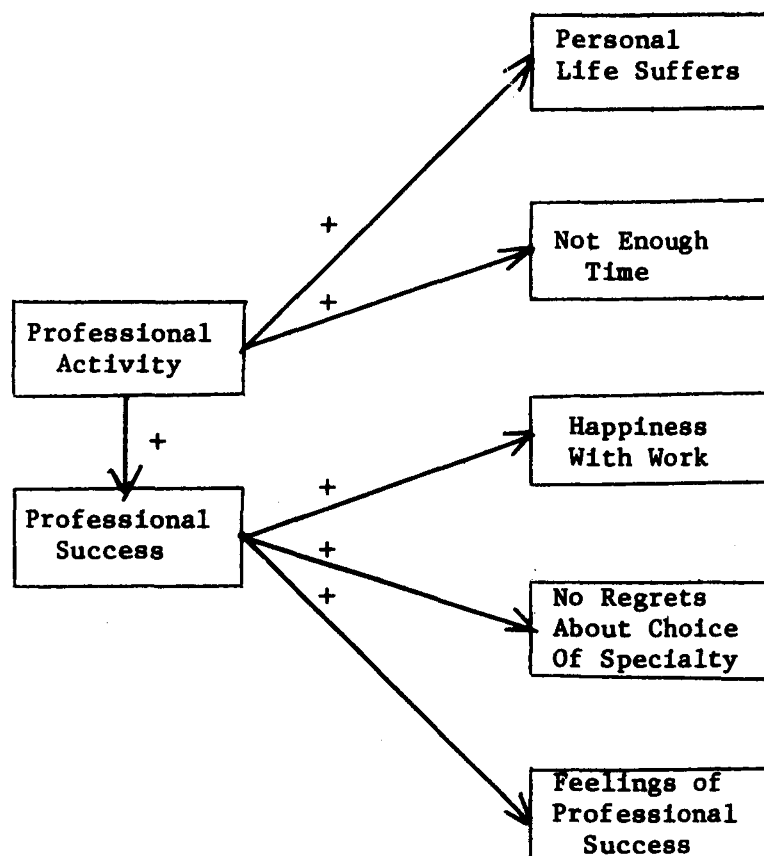
Figure 3. Expected direct effects for women physicians, with variables added by division of original variables to obtain reliable scales (+ indicates a positive relationship; - indicates a negative relationship).



Part A. Expected effects of sources of strain on professional activity and success.



Part B. Expected effects of sources of strain on feelings.



Part C. Expected effects of professional activity and success on feelings.

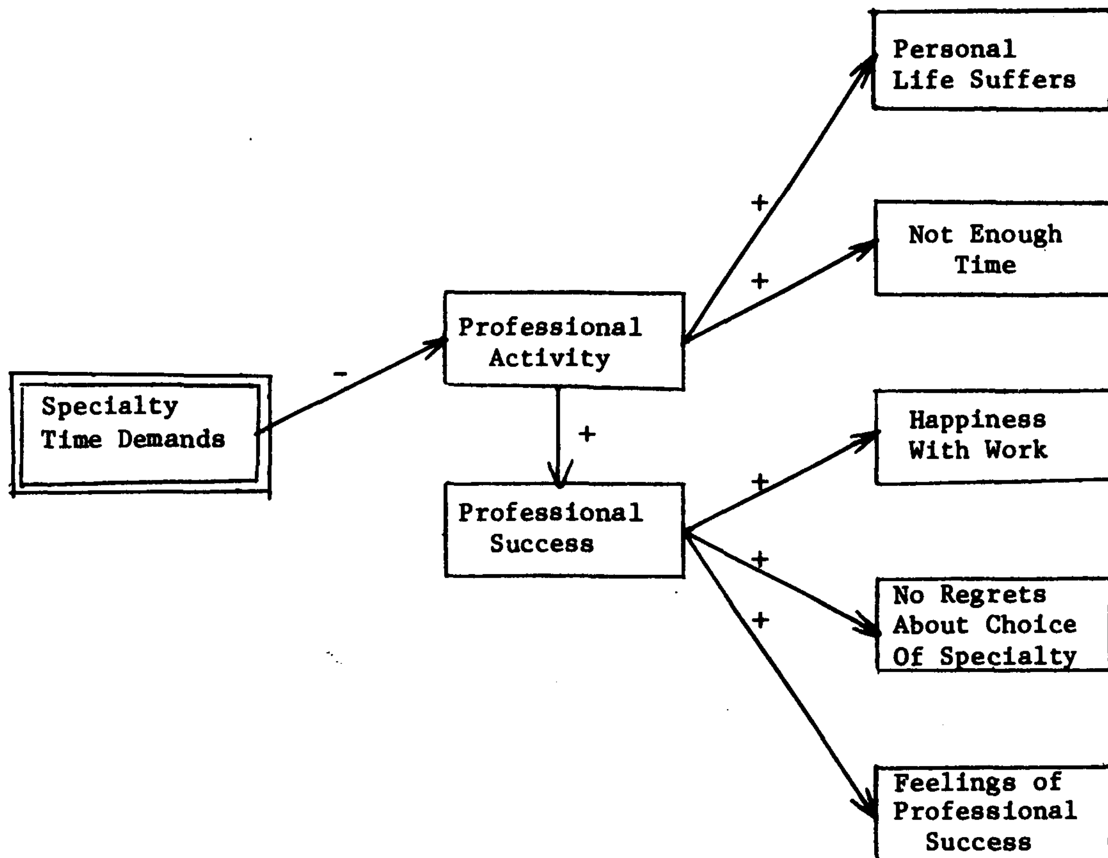


Figure 4. Expected direct effects for men physicians, with variables added by division of original scales to obtain reliable scales (+ indicates a positive relationship; - indicates a negative relationship).

variables has also increased by two. The measures of behavior are still professional activity and professional success, but the measures of feelings now include: feeling that personal life suffers, feeling of not having enough time, feeling of professional success, feeling of happiness with work, and feeling of no regrets about choice of specialty.

Path Analysis

According to Land (1969) the significance or strength of paths can be evaluated in either of two ways. The decision as to whether a postulated path should be retained or deleted from the model can be based either on a statistical test of significance (F test) or on an arbitrary criterion as to what constitutes a "substantially meaningful" path. In this investigation, the path coefficients were evaluated with the first type of criterion. A path was retained in the model only if the F value reached at least a .05 level of significance.

Significant Paths for Women Physicians

Six significant effects were found for women, only one of which was expected. The two main sources of strain accounted for three of the significant relationships found, none of which were predicted. The only predicted significant effect actually found involved a relationship between behavior and feelings. Tables 7 and 8 present the zero order correlation matrices for women and men on which these path coefficients were based.

TABLE 7

Zero Order Correlation Matrix for Women Physicians

Variable	Variable 1	2	3	4	5	6	7	8	9	10	11	12	13
1. Family time demands	1.00	-.16	-.11	-.06	-.06	.13	-.07	.09	.17	.15	.17	-.07	-.08
2. Believed unsuitability	-.16	1.00	.11	.06	.05	.07	.29	.06	-.23	-.20	.17	.12	-.03
3. Specialty time demands	-.11	.11	1.00	-.07	-.11	.01	.23	-.01	.07	.17	.09	.16	-.02
4. Hobbies	-.06	.06	-.07	1.00	.18	.17	.25	-.01	.02	-.02	.04	.04	.12
5. Socializing	-.06	.05	-.11	.18	1.00	.14	-.01	.09	-.20	-.19	.13	.02	.09
6. Nonprofessional organizational activities	.13	.07	.01	.17	.14	1.00	.04	-.06	.13	-.07	-.11	-.10	-.00
7. Professional activity	-.07	.29	.23	.25	-.01	.04	1.00	.18	.13	.04	.02	.14	.10
8. Professional success	.09	.06	-.01	-.01	.09	-.06	.18	1.00	-.12	-.17	.08	.03	.08
9. Feeling that personal life suffers	.17	-.23	.07	.02	-.20	.13	.13	-.12	1.00	.43	.04	.00	.35
10. Feeling of not having enough time	.15	-.20	.17	-.02	-.19	-.07	.04	-.17	.43	1.00	-.04	-.12	.18
11. Happiness with work	.17	.17	.09	.04	.13	-.11	.02	.08	.04	-.04	1.00	.19	.12
12. No regrets about choice of specialty	-.07	.12	.16	.04	.02	-.10	.14	.03	.00	-.12	.19	1.00	-.17
13. Feeling of professional success	-.08	-.03	-.02	.12	.09	-.00	.10	.08	.35	.18	.12	-.17	1.00

TABLE 8

Zero Order Correlation Matrix for Men Physicians

Variable	Variable 1	2	3	4	5	6	7	8	9	10	11	12	13
1. Family time demands	1.00	-.11	.07	.13	-.16	.09	.18	.12	-.08	-.08	.00	-.04	-.02
2. Believed unsuitability	-.11	1.00	.00	-.02	.02	.08	.01	-.11	-.08	.04	.31	.21	-.05
3. Specialty time demands	.07	.00	1.00	-.08	-.12	.16	-.11	-.21	.03	-.06	-.21	-.06	-.11
4. Hobbies	.13	-.02	-.08	1.00	.06	.10	.32	-.06	.08	-.07	.17	-.06	-.12
5. Socializing	-.16	.02	-.12	.06	1.00	-.06	.09	-.03	-.09	.10	.08	-.11	.23
6. Nonprofessional organizational activities	.09	.08	.16	.10	-.06	1.00	.41	.08	.18	.17	.02	.06	-.08
7. Professional activity	.18	.01	-.11	.32	.09	.41	1.00	.08	-.01	.01	.16	-.17	.38
8. Professional success	.12	-.11	-.21	-.06	-.03	.08	.08	1.00	.10	.05	.02	-.04	.05
9. Feeling that personal life suffers	-.08	-.08	.03	.08	-.09	.18	-.01	.10	1.00	.39	.04	-.06	.03
10. Feeling of not having enough time	-.08	.04	-.06	-.07	.10	.17	.01	.05	.39	1.00	-.00	-.07	-.22
11. Happiness with work	.00	.31	-.21	.17	.08	.02	.16	.02	.04	-.00	1.00	.32	.36
12. No regrets about choice of specialty	.04	.21	-.06	-.06	-.11	.06	-.17	-.04	-.06	-.07	.32	1.00	.14
13. Feeling of professional success	-.02	-.05	-.11	.12	.23	-.08	.38	.05	.03	-.22	.36	.14	1.00

As shown in Figure 5, believed unsuitability of the specialty for women had two significant effects, neither of which were predicted. It was found to have a positive influence on professional activity and a negative influence on feeling that personal life suffers. Although it had been expected to have a negative effect on professional success, feeling of professional success, feeling of happiness with work, and feeling of no regrets about choice of specialty, in all four instances, insignificant positive relationships were found.

According to Figure 6, specialty time demands had a positive significant effect on professional activity. Although a significant relationship had been predicted between these two variables, it had been expected to be in the opposite direction. It had also been expected that specialty time demands would have significant negative effects on feeling that personal life suffers, feeling of not having enough time, feeling of happiness with work, and feeling of no regrets about choice of specialty. For all four feelings, the relationships found were in the opposite direction and insignificant.

The sources of strain from the nonprofessional roles accounted for the remaining two unexpected significant effects found. As shown in Figure 7, family time demands had a significant positive effect on feeling of happiness with work, although none was predicted. It had been predicted that family time demands would have a negative

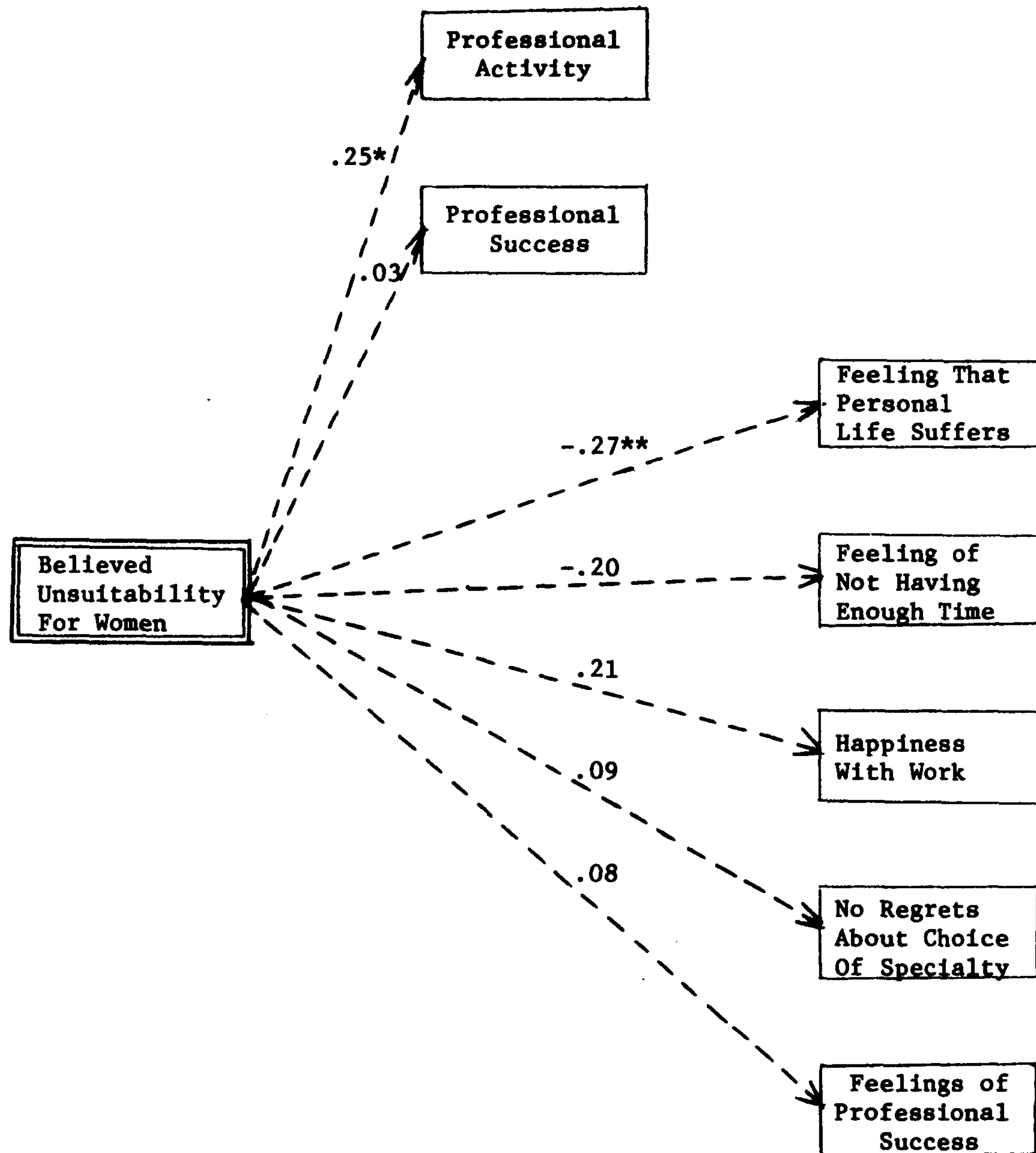


Figure 5. Effects of believed unsuitability for women on measures of behavior and feelings for women physicians (Solid lines indicate predicted effects; broken lines indicate unpredicted effects; * indicates .05 level of significance).

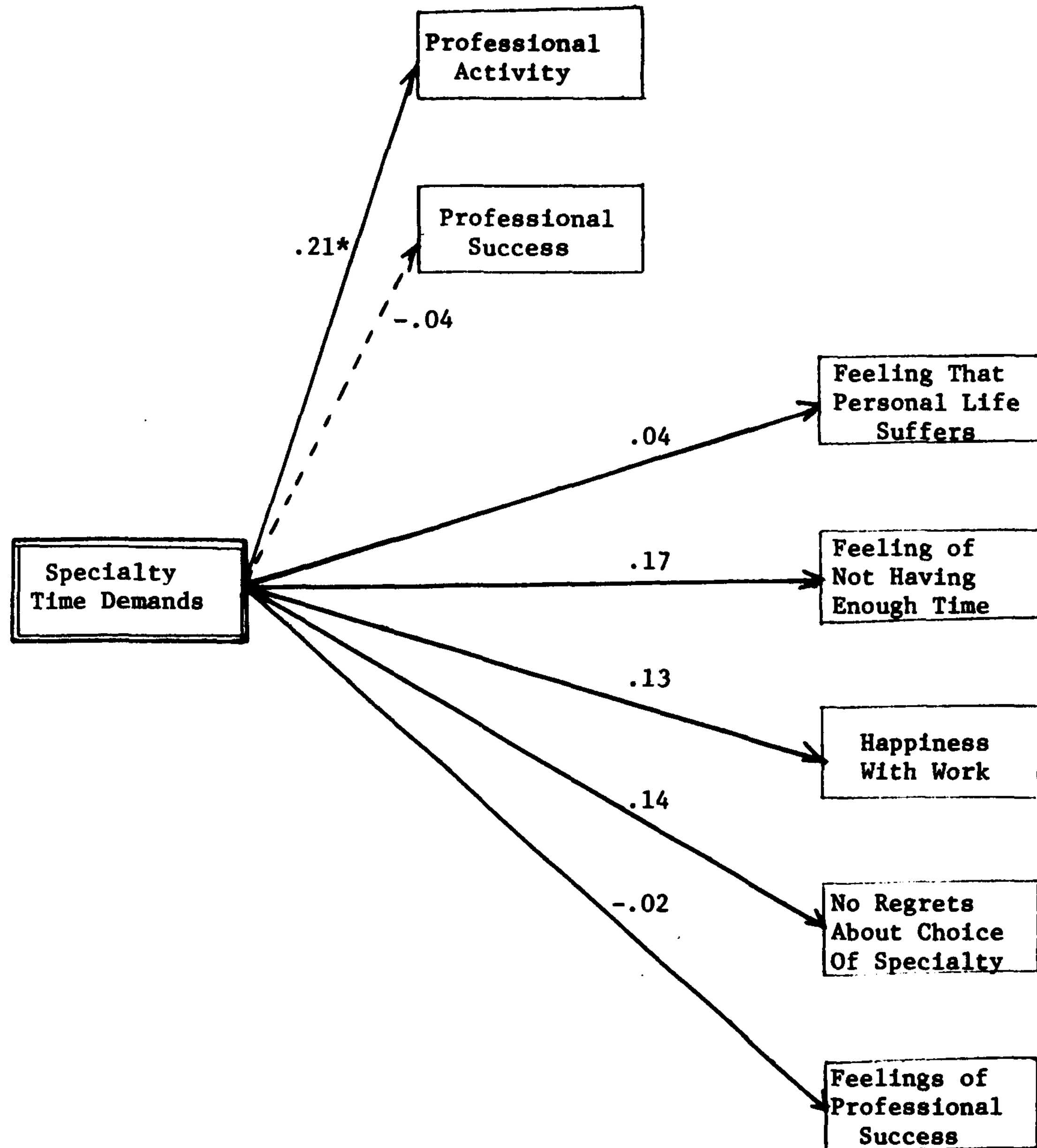


Figure 6. Effects of specialty time demands on measures of behavior and feelings for women physicians (Solid lines indicate predicted effects; broken lines indicate unpredicted effects; * indicates .05 level of significance).

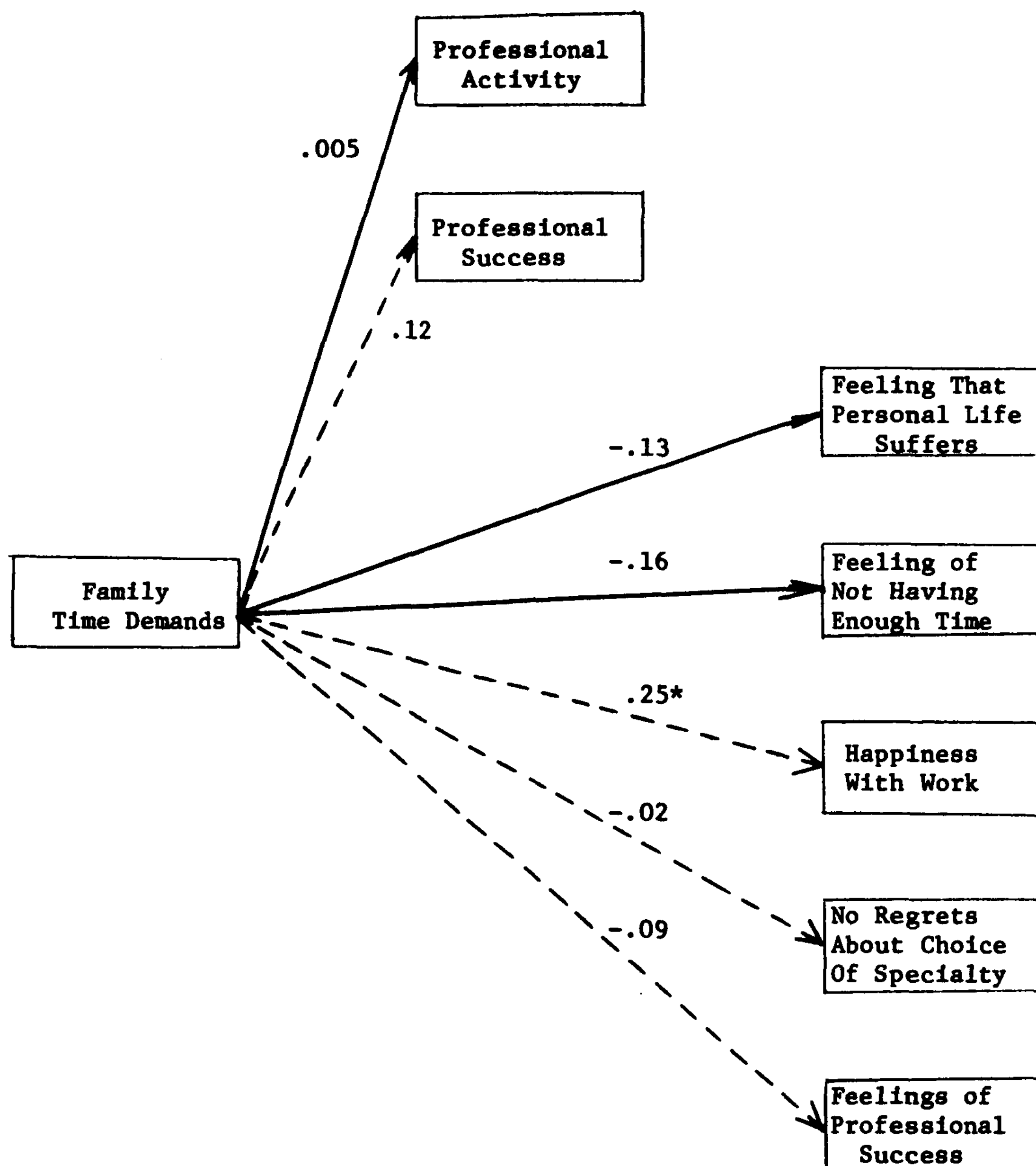


Figure 7. Effects of family time demands on measures of behavior and feelings for women physicians (Solid lines indicate predicted effects; broken lines indicate unpredicted effects; * indicates .05 level of significance).

influence on level of professional activity, but the relationship found was in the opposite direction and insignificant. It had also been predicted that family time demands would have a positive influence on feeling that personal life suffers and feeling of not having enough time, and these two relationships were found to be in the predicted direction, but insignificant.

According to Figure 8, hobbies had a significant positive effect on professional activity. A significant relationship had been expected between these two variables, but in the opposite direction, i.e. it had been expected to be negative. Significant positive relationships had been predicted with feeling that personal life suffers and feeling of not having enough time, but insignificant relationships were found.

As can be seen in Figures 9 and 10, the other two sources of strain, socializing and nonprofessional organizational activites, did not have any significant effects. Both were expected to have significant negative effects on professional activity and positive effects on feeling that personal life suffers and feeling of not having enough time. For socializing, the relationship with professional activity was in the expected direction, but not significant, while the relationships with feeling that personal life suffers and feeling of not having enough time were in the opposite direction and insignificant. For nonprofessional organizational activities, the relationships with professional

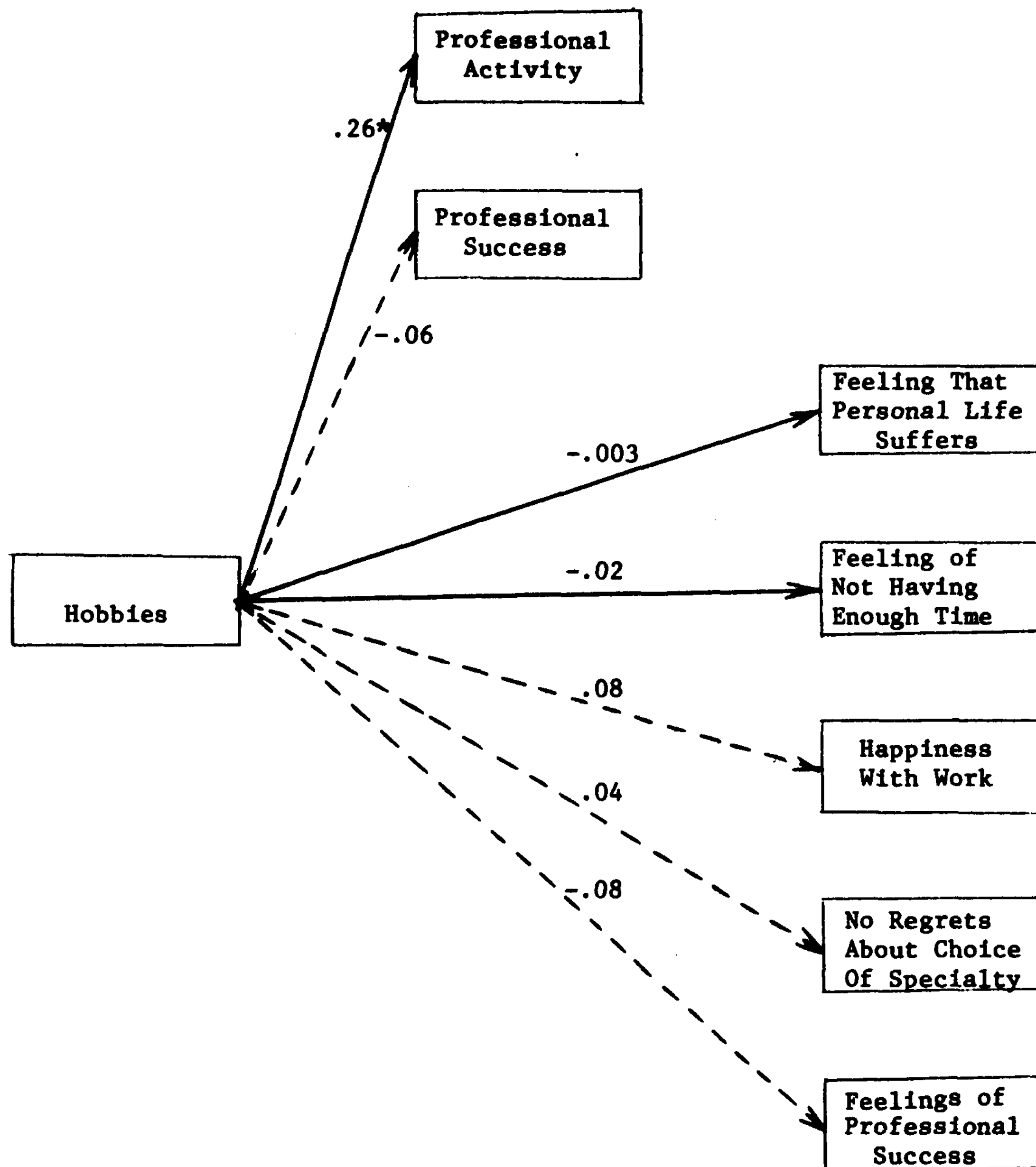


Figure 8. Effects of hobbies on measures of behavior and feelings for women physicians (Solid lines indicate predicted effects; broken lines indicate unpredicted effects; * indicates .05 level of significance).

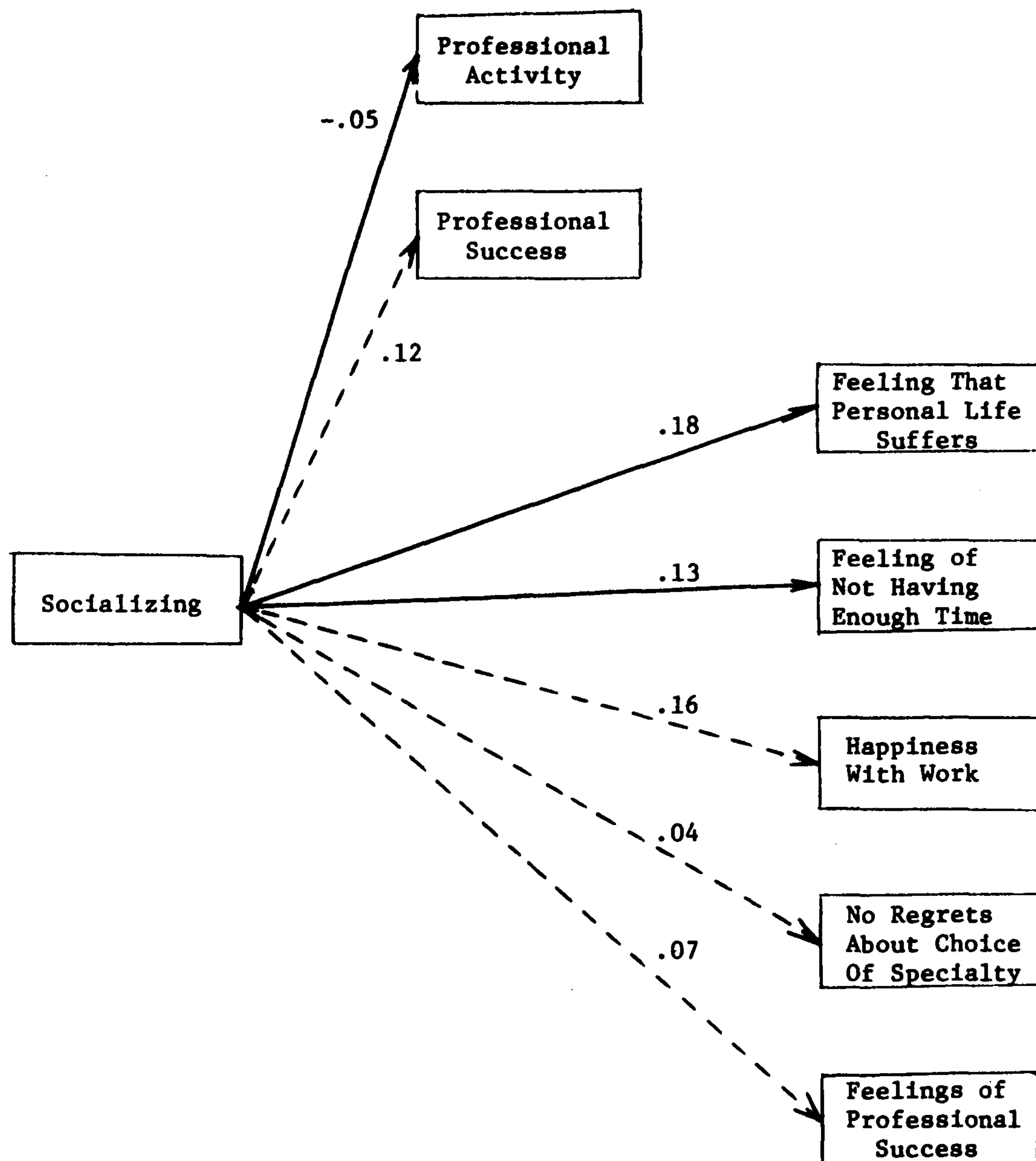


Figure 9. Effects of socializing on measures of behavior and feelings for women physicians (Solid lines indicate predicted effects; broken lines indicate unpredicted effects).

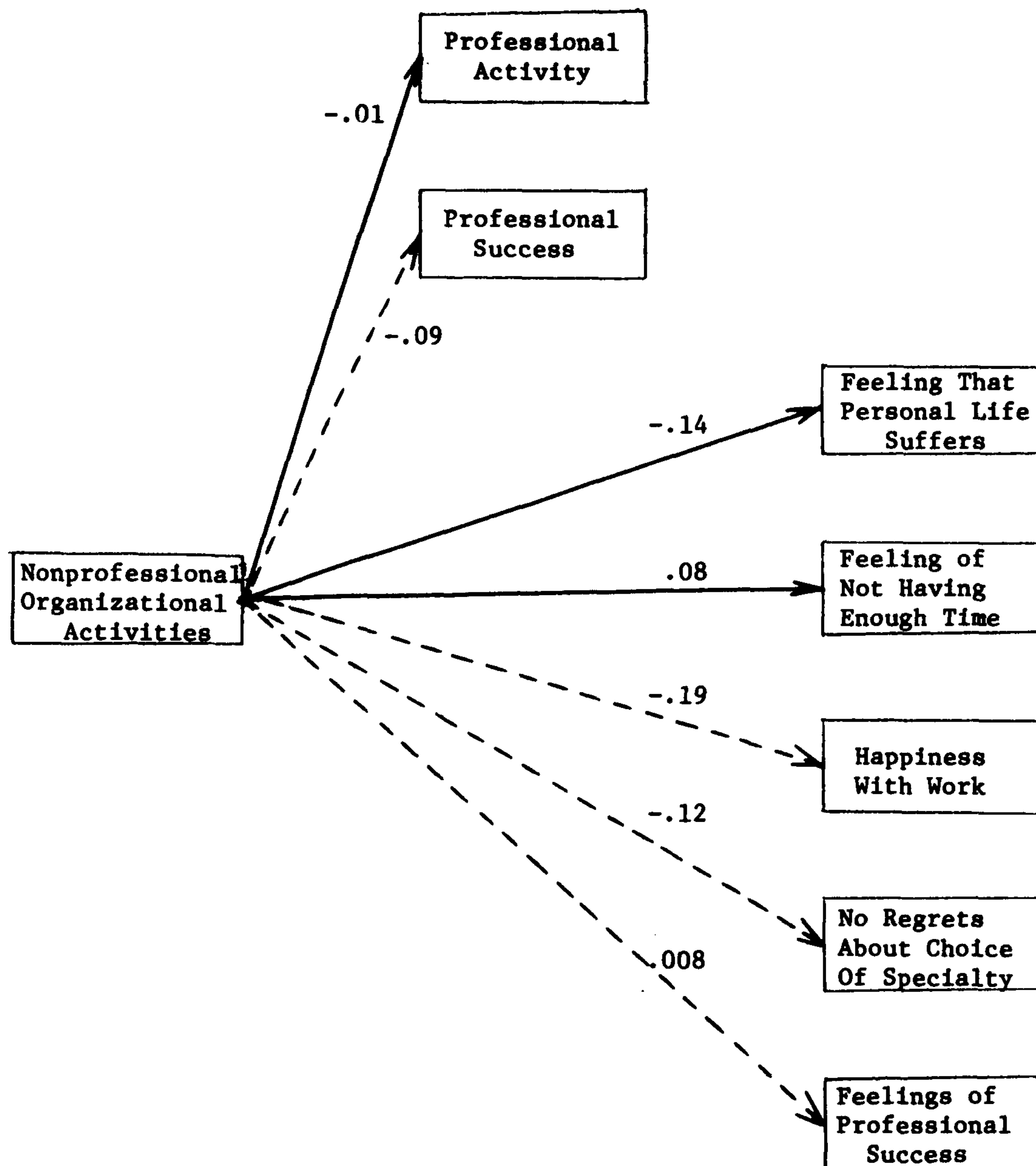


Figure 10. Effects of nonprofessional organizational activities on measures of behavior and feelings for women physicians (Solid lines indicate predicted effects; broken lines indicate unpredicted effects).

activity and feeling that personal life suffers were in the expected direction but insignificant, while for feeling of not having enough time it was in the opposite direction as well as insignificant.

As shown in Figure 11, professional activity was expected to have a positive effect on feeling that personal life suffers, and this effect was found. The other two relationships expected for professional activity, with professional success and feeling of not having enough time, were not found. Both were in the expected direction, but insignificant.

Figure 12 shows that professional success did not have any significant effects, although three had been expected. The relationships with feeling of happiness with work, feeling of no regrets about choice of specialty, and feeling of professional success were all positive, in the direction predicted, but none were significant.

All together, 53 paths were measured. It had been predicted that 27 would be significant. Only one of these 27 turned out signficant in the predicted direction. Thirteen were in the expected direction, but insignificant, eleven were in the opposite direction and insignificant, and two were in the opposite direction and significant. Of the remaining 26 relationships which were not expected to be significant, 23 were, in fact, not found to be significant.

All of these results are presented in terms of the

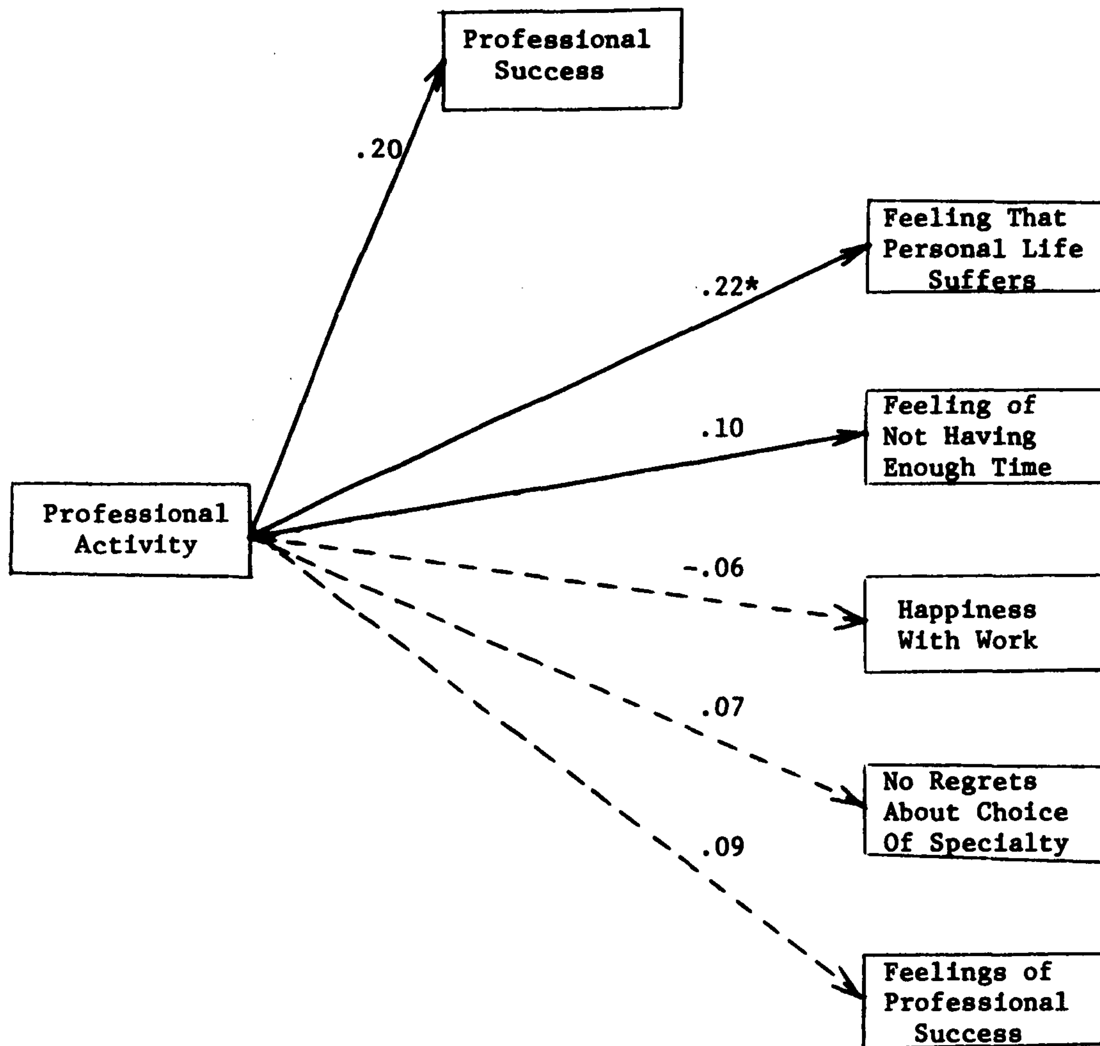


Figure 11. Effects of professional activity on measures of behavior and feelings for women physicians (Solid lines indicate predicted effects; broken lines indicate unpredicted effects; * indicates .05 level of significance).

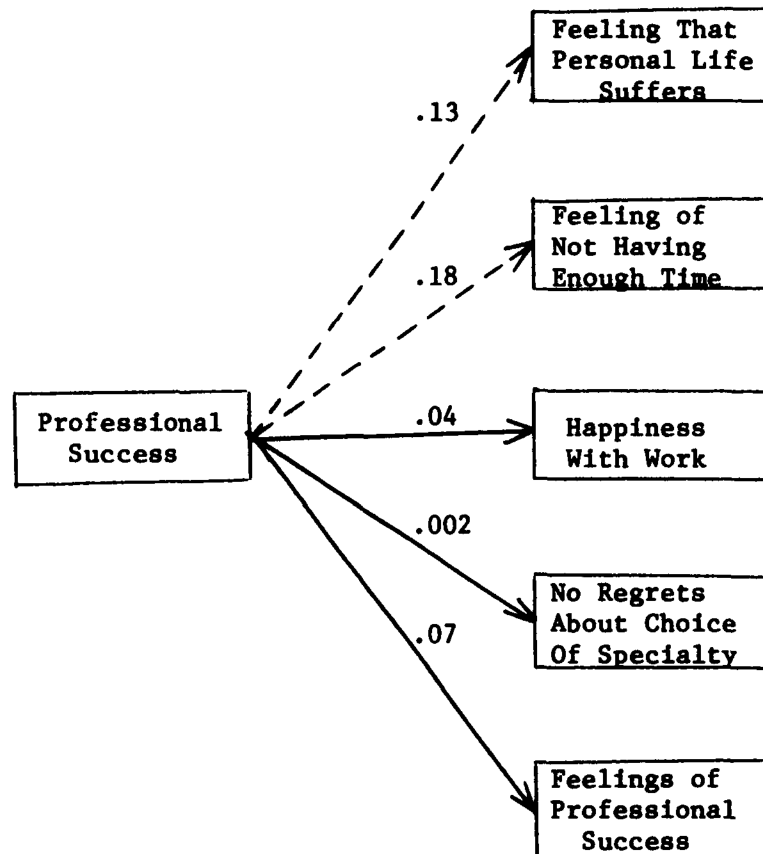


Figure 12. Effects of professional success on measures of feeling for professional women (Solid lines indicate predicted effects; broken lines indicate unpredicted effects).

direct effects, since total indirect effects were found to be very small, only one being greater than 0.09, and most ranging from 0.001 to 0.03. In some cases, however, they were in the opposite direction from the direct effects, and as a result, in these cases the direct effects were actually larger than the correlation coefficients. All the correlation coefficients, direct effects, and total indirect effects for women are presented in Table 9, and those for men are presented in Table 10.

It must also be noted that in all instances the sizes of the residuals are very large. They range from 0.90 to 0.98. This means that for all the endogenous variables in this model a very large proportion of the variance is caused by unmeasured factors outside the system. The residuals for both women and men are presented in Table 11.

Significant Paths for Men Physicians

Only four relationships were found to be significant for men, none of which had been predicted. Of those four, only one was the same as one found to be significant for women: the positive relationship between hobbies and professional activities. The three other relationships found to be significant for men were all unique to them: a positive relationship between believed unsuitability for women and happiness with work, a negative relationship between specialty time demands and professional success, and a positive relationship between professional activity and feeling of professional success. The complete results

TABLE 9

Correlations, Direct Effects, and Total Indirect Effects for Women Physicians

Variable	Correlation	Direct Effects	Indirect Effects
	Professional Activity		
Family time demands	-.073	.005	-.078
Believed unsuitability for women	.289	.253*	.036
Specialty time demands	.267	.213*	.014
Hobbies	.250	.261*	-.011
Socializing	-.012	-.046	.035
Nonprofessional organizational activities	.044	-.015	.059
	Professional Success		
Family time demands	.088	.020	-.032
Believed unsuitability for women	.065	.033	.032
Specialty time demands	-.009	-.037	.028
Hobbies	-.009	-.063	.054
Socializing	.092	.120	-.028
Nonprofessional organizational activities	-.058	-.090	.032
Professional activity	.175	.203	-.028

Variable	Correlation	Direct Effects	Indirect Effects
	Feeling That Personal Life Suffers		
Family time demands	.167	.128	.039
Beleived unsuitability for women	-.228	-.270*	.042
Specialty time demands	.072	.045	.027
Hobbies	.024	.003	.021
Socializing	-.199	-.177	.022
Nonprofessional organizational activities	-.129	.136	-.007
Professional activity	.133	.225*	-.091
Professional success	-.123	-.131	.008
	Feeling of Not Having Enough Time		
Family time demands	.148	.162	-.014
Believed unsuitability for women	-.198	-.199	.001
Specialty time demands	.167	.170	-.003
Hobbies	-.025	.019	-.044
Socializing	-.190	-.126	-.064
Nonprofessional organizational activities	-.072	-.082	.010
Professional activity	.044	.104	-.060
Professional success	-.170	-.181	.011

Variable	Correlation	Direct Effects	Indirect Effects
	Happiness With Work		
Family time demands	.169	.249*	-.080
Believed unsuitability for women	.169	.209	-.040
Specialty time demands	.092	.133	-.041
Hobbies	.045	.078	-.033
Socializing	.133	.161	-.028
Nonprofessional organizational activities	-.114	-.193	.080
Professional activity	.025	-.063	.088
Professional success	.085	.036	.049
	No Regrets About Choice of Specialty		
Family time demands	-.072	-.016	-.056
Believed unsuitability for women	.124	.088	.036
Specialty time demands	.158	.138	.020
Hobbies	.045	.044	.001
Socializing	.023	.042	-.019
Nonprofessional organizational activities	-.103	-.124	.021
Professional activity	.138	.075	.063
Professional success	.029	.002	.027

Variable	Correlation	Direct Effects	Indirect Effects
	Feelings of Professional Success		
Family time demands	-.082	-.086	.004
Believed unsuitability for women	-.030	-.081	.051
Specialty time demands	-.018	-.025	.007
Hobbies	.121	.085	.036
Socializing	.092	.068	.024
Nonprofessional organizational activities	-.001	-.008	.007
Professional activity	.104	.094	.010
Professional success	.083	.073	.010

* $p < .05$

TABLE 10

Correlations, Direct Effects, and Total Indirect Effects for Men Physicians

Variable	Correlation	Direct Effects	Indirect Effects
	Professional Activity		
Family time demands	.178	.163	.015
Believed unsuitability for women	.011	.033	-.021
Specialty time demands	-.114	-.096	-.018
Hobbies	.325	.290*	.035
Socializing	.090	.088	.002
Nonprofessional organizational activities	.041	.016	.025
	Professional Success		
Family time demands	.117	.110	.007
Believed unsuitability for women	-.113	-.115	.002
Specialty time demands	-.213	-.245*	.032
Hobbies	-.060	-.131	.071
Socializing	-.027	-.027	-.0002
Nonprofessional organizational activities	.079	.126	-.047
Professional activity	.084	.077	.007

Table 10 (continued)

Variable	Correlation	Direct Effects	Indirect Effects
	Feeling That Personal Life Suffers		
Family time demands	-.072	-.137	.065
Believed unsuitability for women	-.083	-.097	.014
Specialty time demands	.027	.022	.005
Hobbies	.082	.101	-.020
Socializing	-.092	-.101	.009
Nonprofessional organizational activities	.183	.177	.006
Professional activity	-.011	-.023	.011
Professional success	.097	.098	-.001
	Feeling of Not Having Enough Time		
Family time demands	-.081	-.109	.028
Believed unsuitability for women	.039	.013	.026
Specialty time demands	-.061	-.097	.035
Hobbies	.073	-.093	.020
Socializing	-.103	-.119	.016
Nonprofessional organizational activities	.173	.196	-.023
Professional activity	.012	.051	-.040
Professional success	.053	.018	.035

Table 10(continued)

Variable	Correlation	Direct Effects	Indirect Effects
	Happiness With Work		
Family time demands	.004	.023	-.019
Believed unsuitability for women	.310	.319**	-.009
Specialty time demands	-.206	-.174	-.032
Hobbies	.172	.138	.034
Socializing	.076	.036	.040
Nonprofessional organizational activities	-.015	-.031	.016
Professional activity	.162	.086	.076
Professional success	.020	.021	-.001
	No Regrets About Choice of Specialty		
Family time demands	.037	.089	-.052
Believed unsuitability for women	.207	.211	-.004
Specialty time demands	-.059	-.116	.057
Hobbies	-.065	-.022	-.043
Socializing	-.106	-.088	-.018
Nonprofessional organizational activities	.057	.059	-.002
Professional activity	-.172	-.188	.016
Professional success	-.035	-.039	.004

Variable	Correlation	Direct Effects	Indirect Effects
	Feelings of Professional Success		
Family time demands	-.025	-.063	.038
Believed unsuitability for women	-.046	-.051	.005
Specialty time demands	-.105	-.020	-.085
Hobbies	.115	-.003	.118
Socializing	.227	.179	.049
Nonprofessional organizational activities	-.075	-.069	-.006
Professional activity	.377	.372**	.005
Professional success	.053	.029	.024

*p $< .05$

**p $< .01$

TABLE 11

Residuals for Women and Men

Variable	Residual	
	Women	Men
Professional activity	.91	.93
Professional success	.97	.95
Feeling that personal life suffers	.90	.96
Feeling of not having enough time	.92	.96
Feeling of happiness with work	.93	.91
Feeling of no regrets about choice of specialty	.97	.95
Feelings of professional success	.98	.90

for men are presented in Figures 13 to 20.

All together, seven relationships had been expected to be significant for men, and none of them was found, although five were in the predicted direction and only two were in the opposite direction. Of the 46 which had not been expected to be significant, 42 were, in fact, not significant, and four were significant.

Revised Models

Figure 21 shows the revised model for women physicians, based on a second path analysis done on the relationships from the original model found empirically to be significant. Only the new coefficients which were found to be significant were retained. These coefficients are presented in the model in this analysis. Most of the significant new coefficients were very close in size to the significant old ones. Only one path which originally had been found to be significant was not found to be significant in the second analysis: the relationship between family time demands and happiness with work. Therefore it was not included in the revised model.

As had been expected, the situations for men and women are quite different, even though one relationship, a positive one between hobbies and professional activity, was found to be significant for both. Figure 22 shows the revised model for men physicians, with its significant revised coefficients. Three of the four paths originally found to be significant have been retained. The path

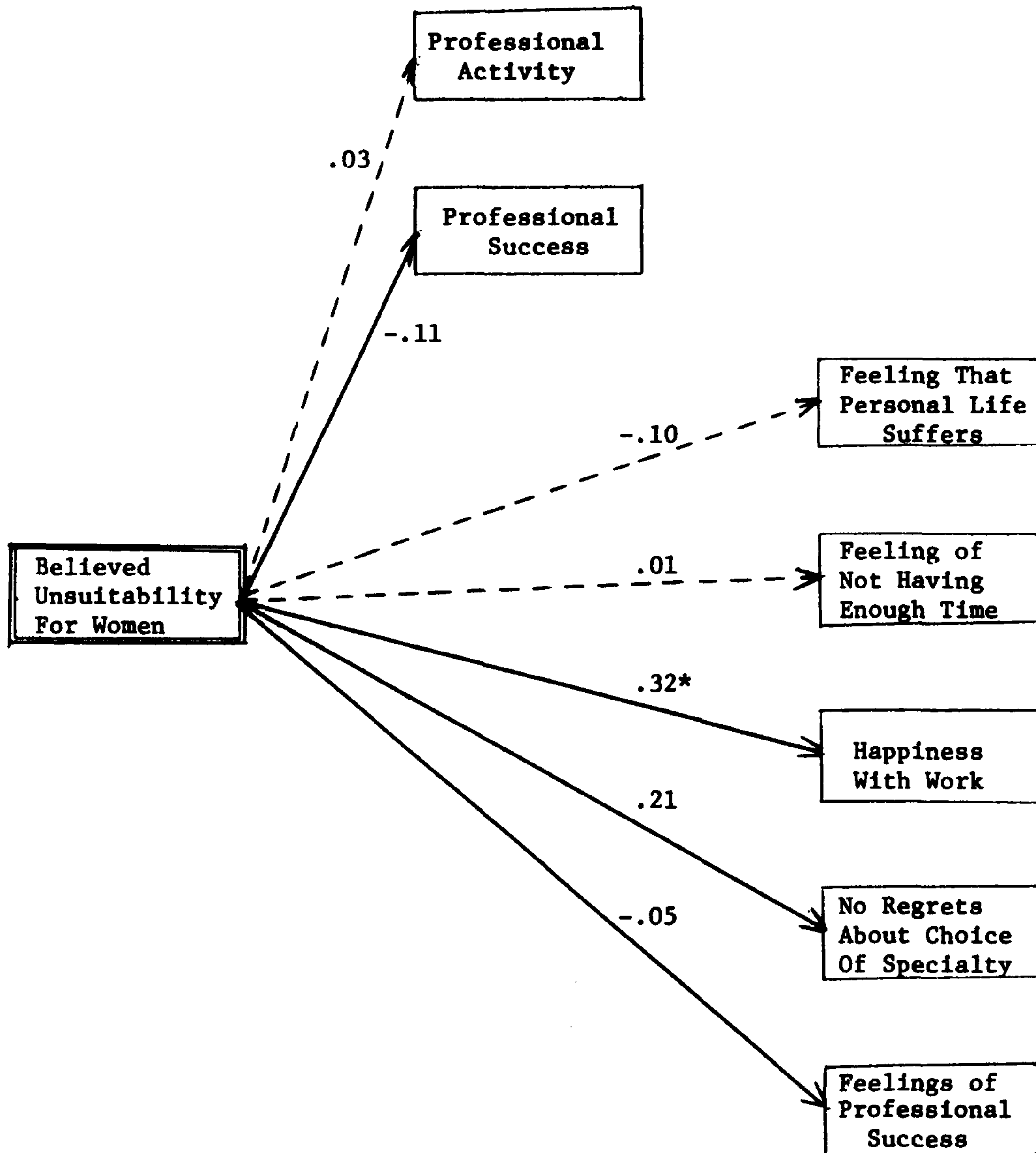


Figure 13. Effects of believed unsuitability for women on measures of behavior and feelings for men physicians (Broken lines indicate unpredicted effects; * indicates .05 level of significance).

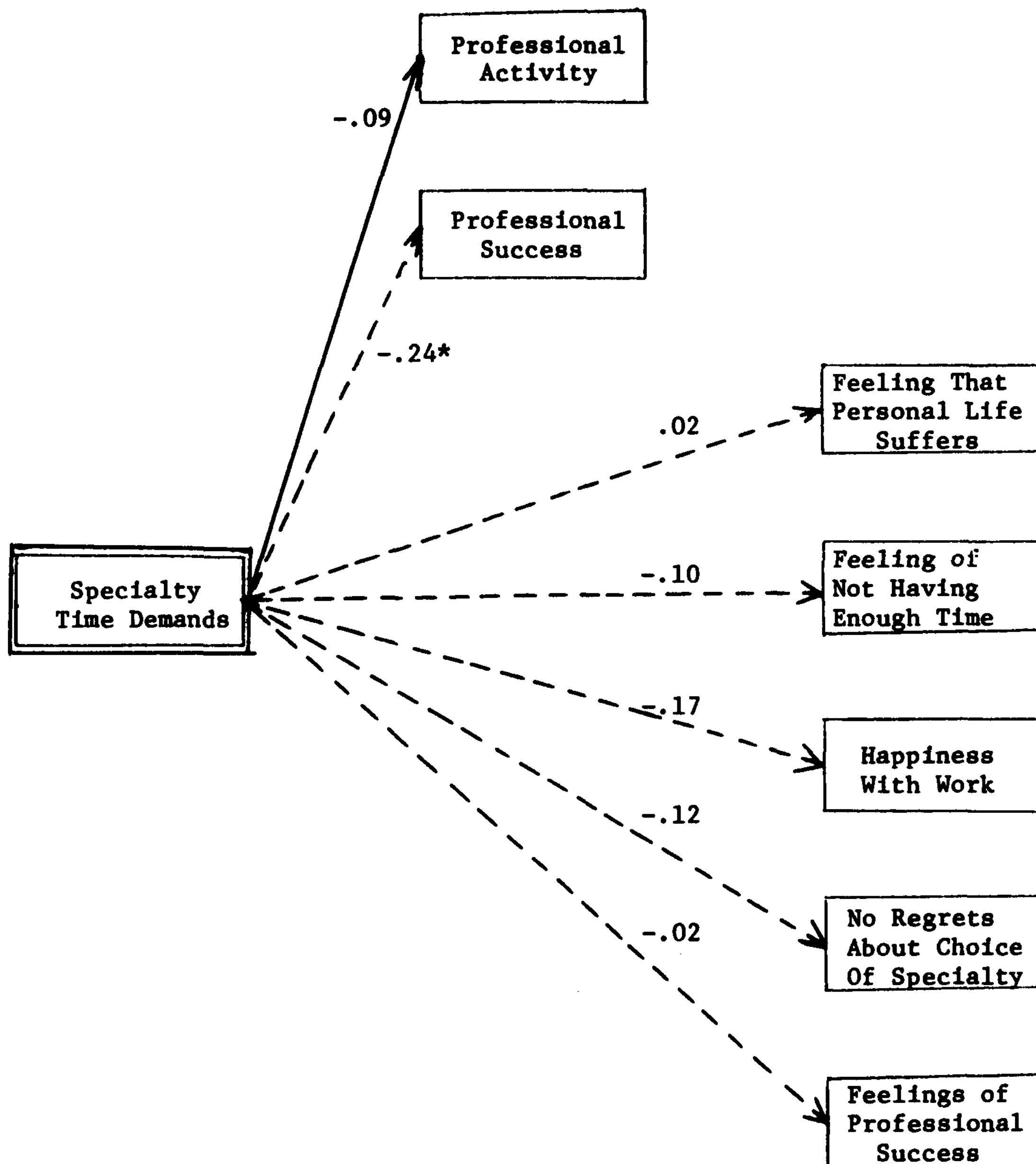


Figure 14. Effects of specialty time demands on measures of behavior and feelings for men physicians (Solid lines indicate predicted effects; broken lines indicate unpredicted effects; * indicates .05 level of significance).

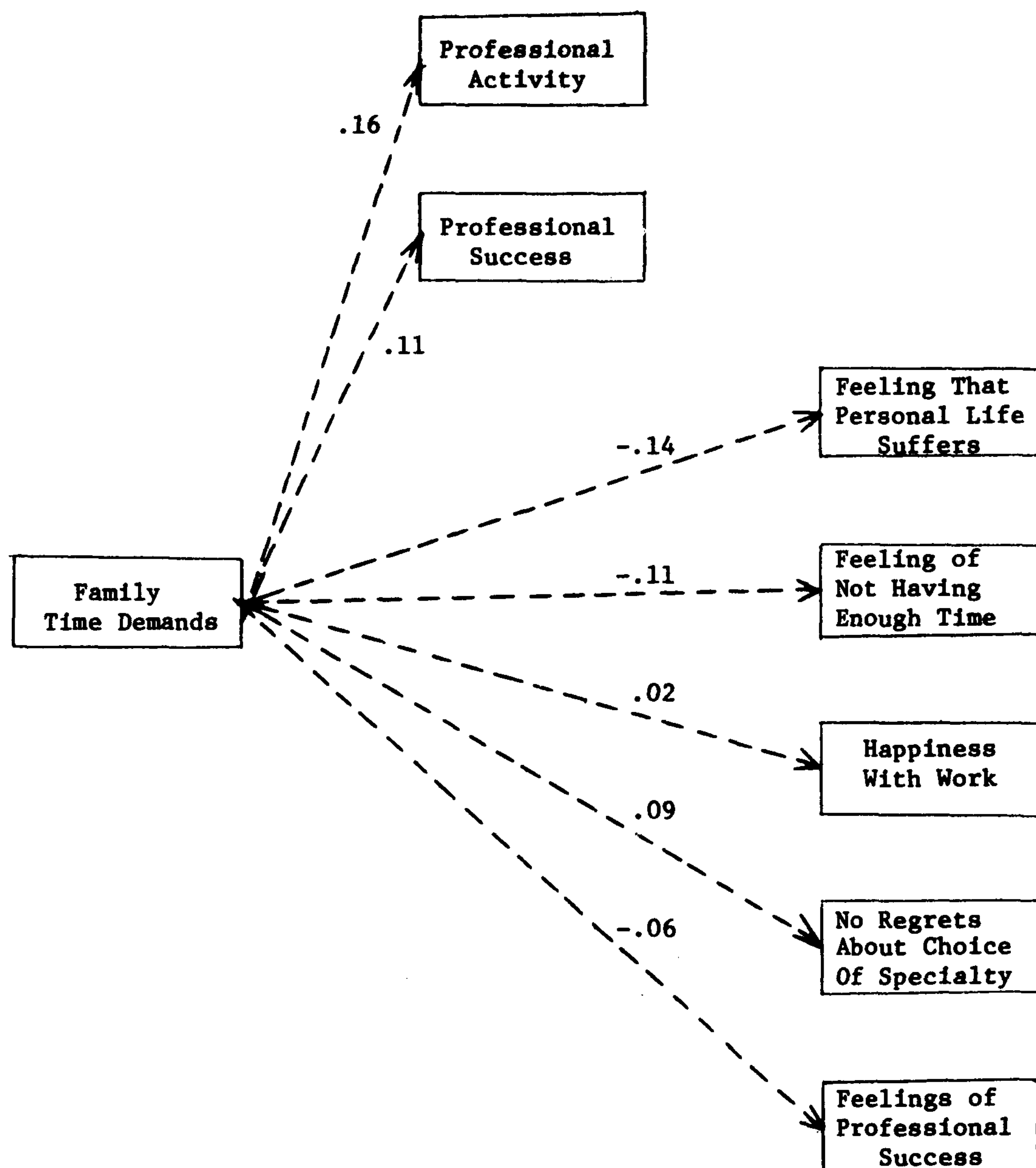


Figure 15. Effects of family time demands on measures of behavior and feelings for men physicians (Broken lines indicate unpredicted effects).

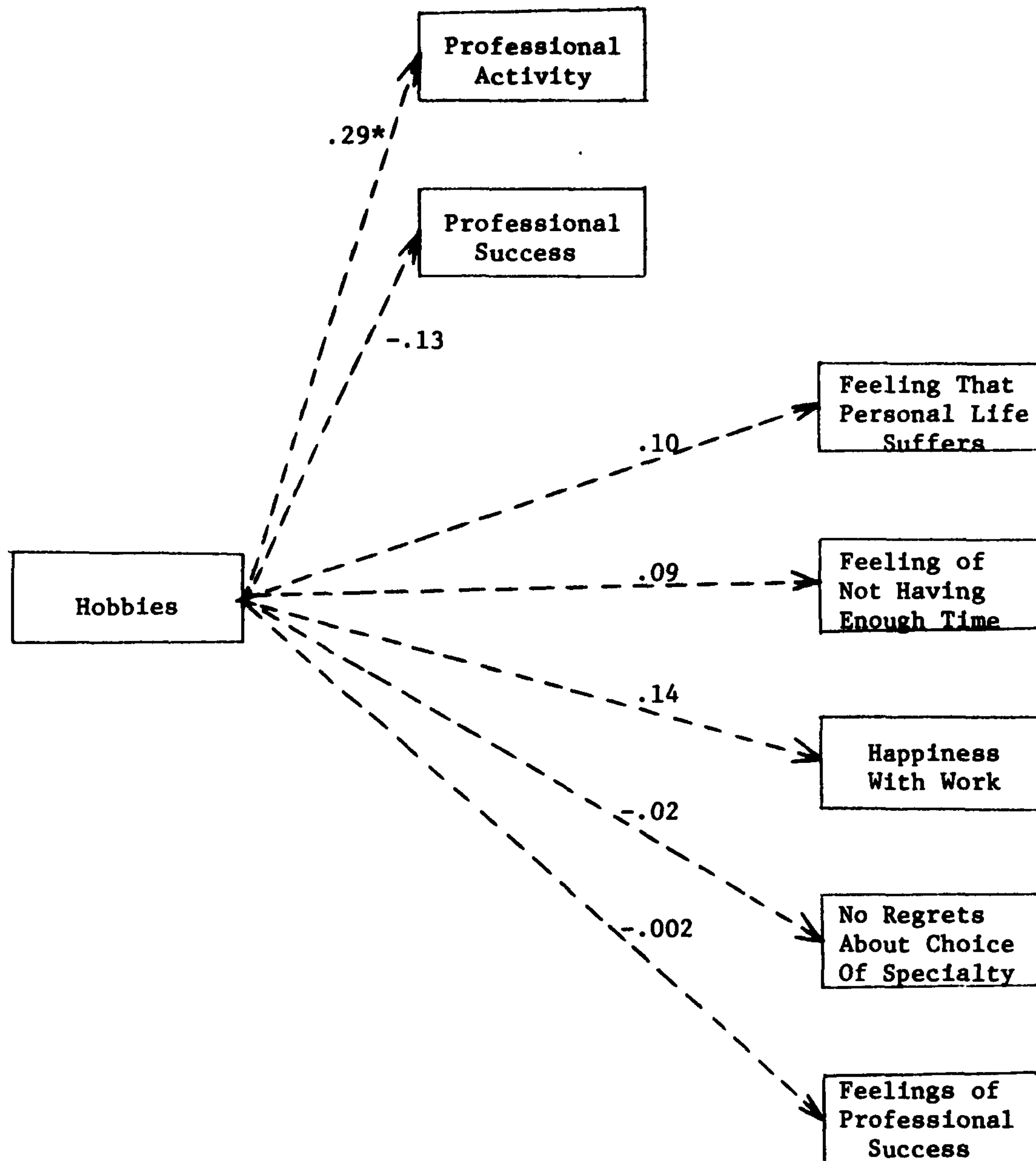


Figure 16. Effects of hobbies on measures of behavior and feelings for men physicians (Broken lines indicate unpredicted effects; * indicates .05 level of significance).

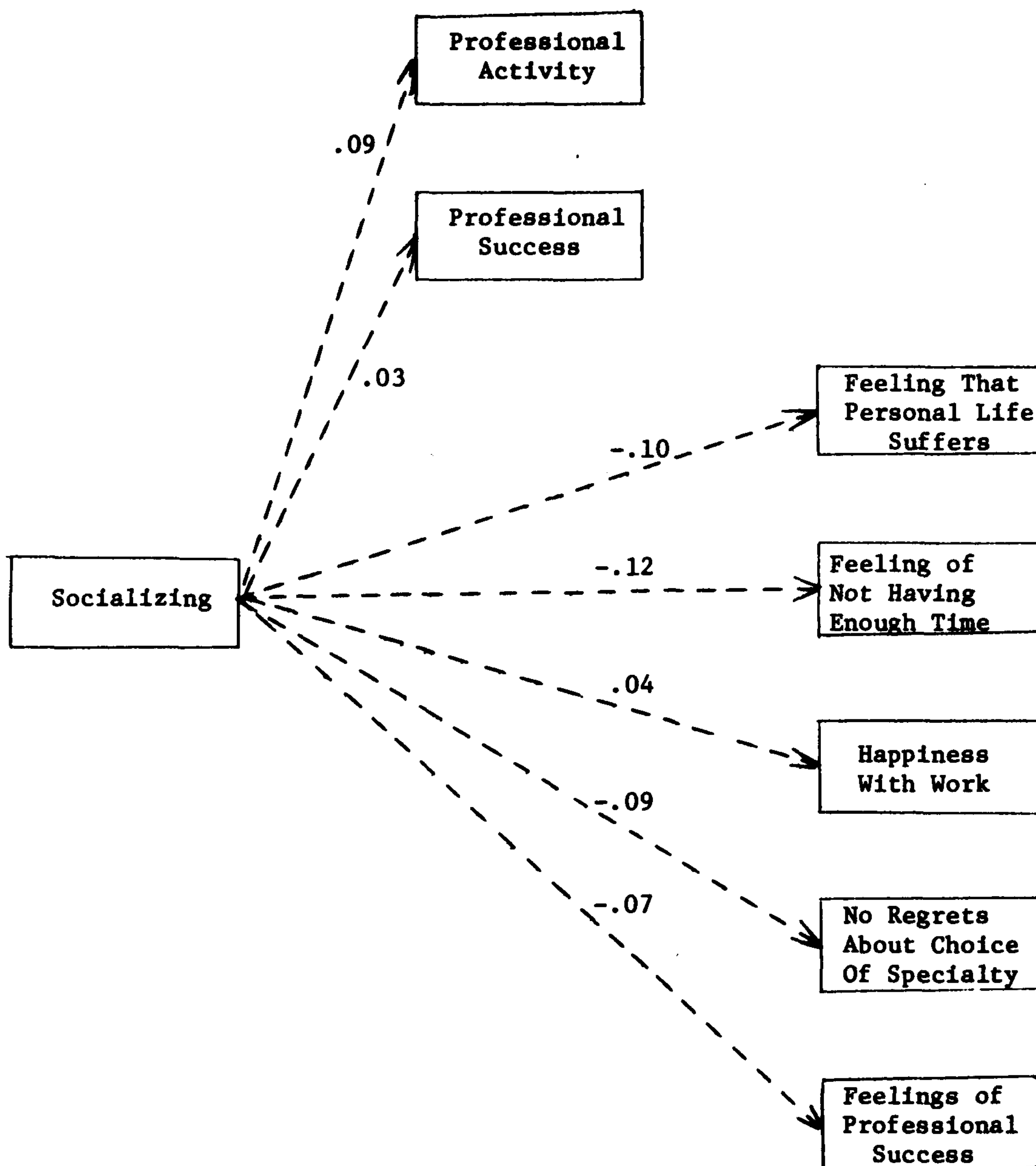


Figure 17. Effects of socializing on measures of behavior and feelings for men physicians (broken lines indicate unpredicted effects).

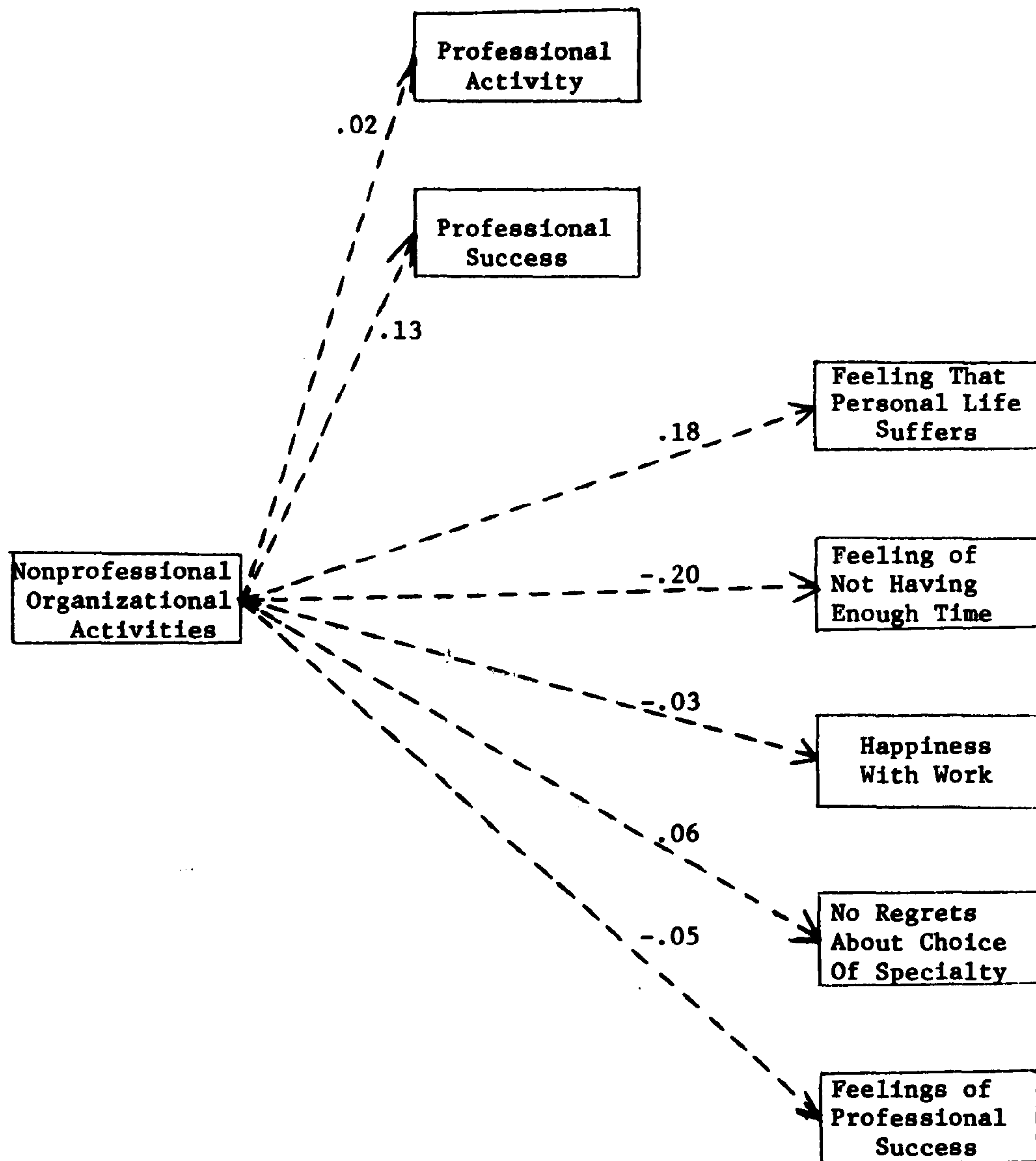


Figure 18. Effects of nonprofessional organizational activities on measures of behavior and feelings for men physicians (Broken lines indicate unpredicted effects).

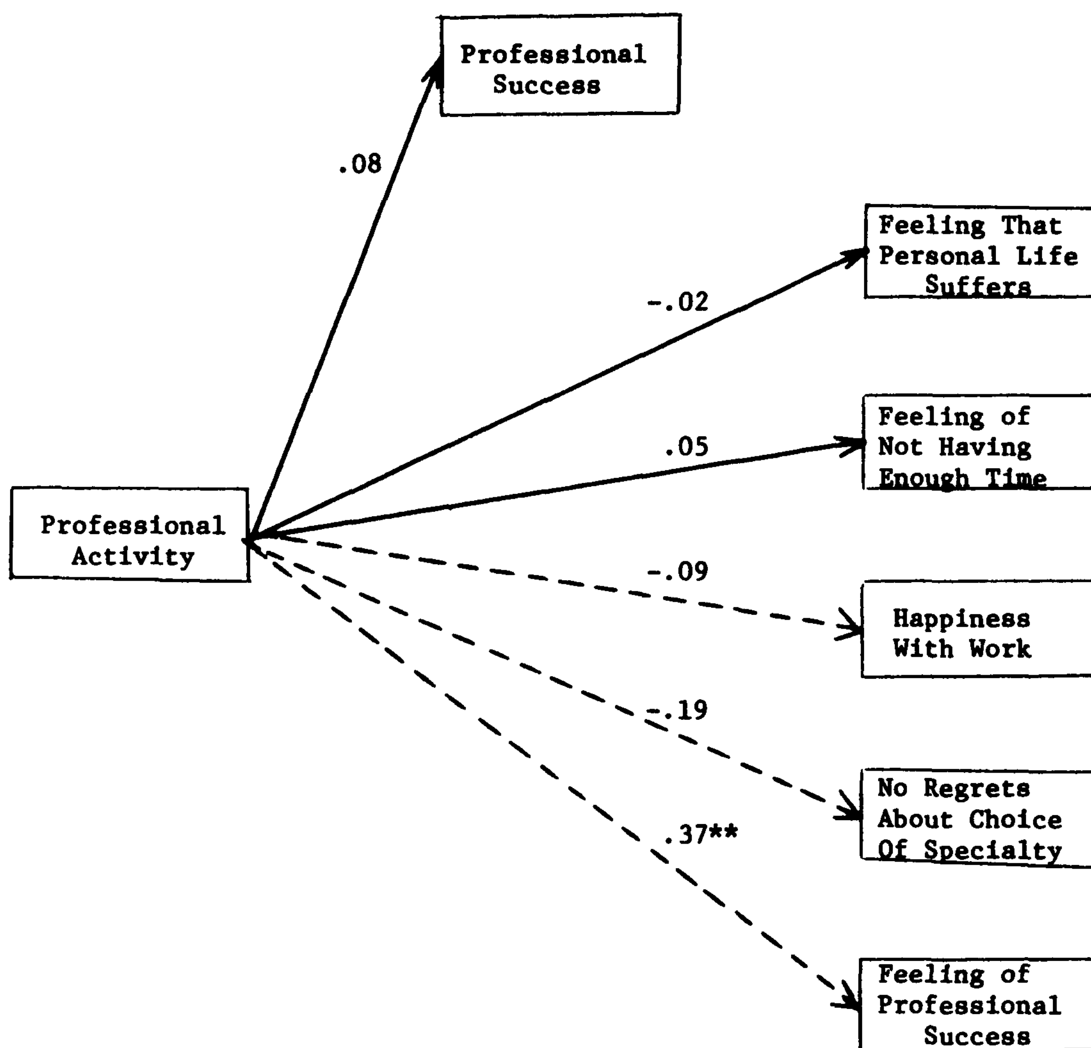


Figure 19. Effects of professional activity on measures of behavior and feelings for men physicians (Solid lines indicate predicted effects; broken lines indicate unpredicted effects; ** indicates .01 level of significance).

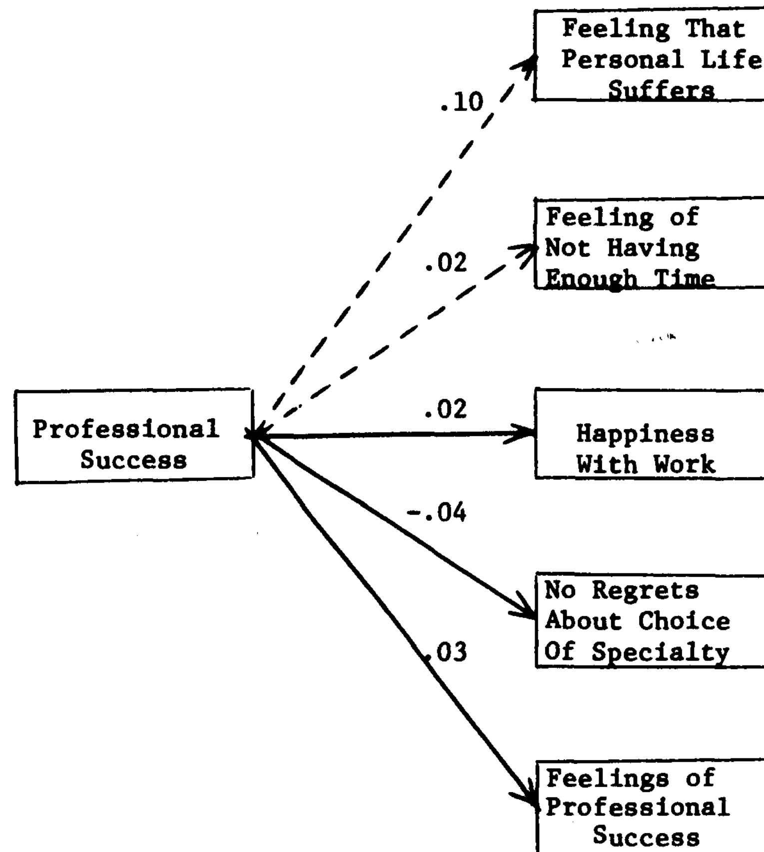


Figure 20. Effects of professional success on measures of feelings for men physicians (Solid lines indicate predicted effects; broken lines indicate unpredicted effects).

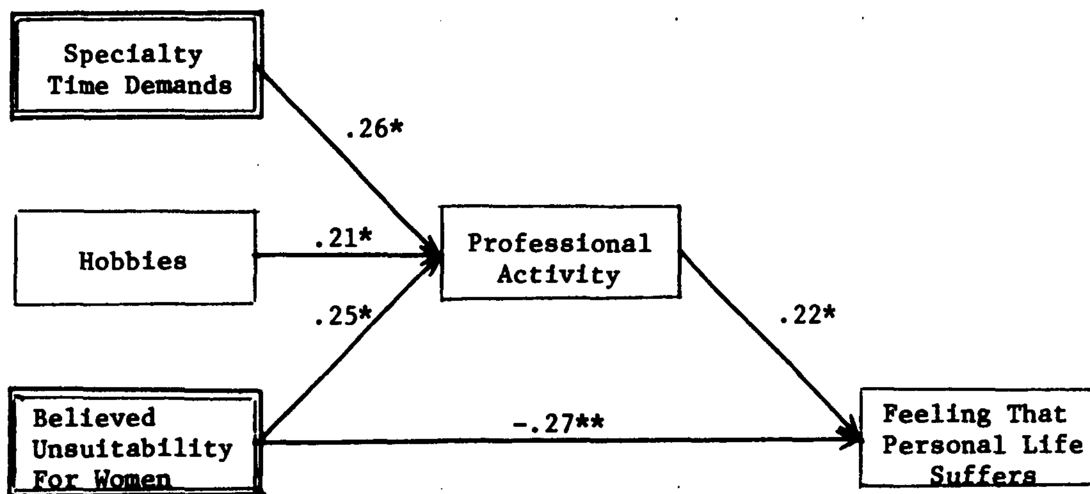


Figure 21. Paths with revised coefficients that are statistically significant for women physicians (* indicates .05 level of significance; ** indicates .01 level of significance).

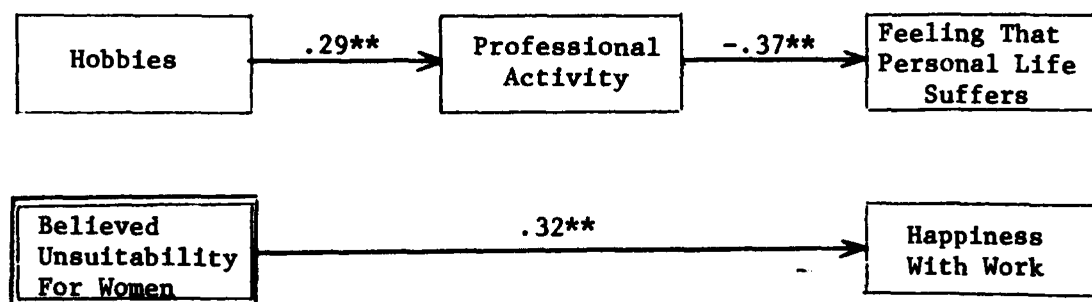


Figure 22. Paths with revised coefficients that are statistically significant for men physicians (**indicates .01 level of significance).

between specialty time demands and professional success has been deleted because it was not found to be significant on the second path analysis.

Discussion of an Alternative Interpretation

According to the results of this investigation, the strain variables included in the original model do not influence either behavior or feelings in the predicted way. As a result, a new perspective is needed in order to understand the situation facing these women physicians. Insight into this problem can be gained by examining certain evidence about the differences found among women in the four specialties. Figures are presented in Table 12 which show that women in the various fields differ with regard to certain types of behavior and feelings. Specifically, women in surgery have the lowest percentage who ever married and had children, while women in psychiatry have the greatest percentage who ever married and had children. Furthermore, women in surgery also have the highest mean level of professional activity, while women in psychiatry have the greatest percentage who report feeling that their personal life suffers, closely followed by women in surgery. Further analysis of these findings suggests a new approach for understanding the behavior and feelings of this group of women physicians.

One of the basic assumptions on which the predictions in the original model are based is that the two main types of conflict investigated, specialty time demands and believed unsuitability of a field for women, inevitably produce strain for women physicians which has continued

TABLE 12

Percentage of Women in Each Specialty Ever Married, With Children, and With the Feeling That Their Personal Life Suffers, and Mean Level of Professional Activity by Women in Each Specialty

Specialty	% Ever Married	% Ever Had Children	% Who Felt That Their Personal Life Suffers	Mean Level of Professional Activity
Surgery	42.1	26.1	73.9	16.52
Pediatrics	62.9	48.1	59.3	10.85
Otolaryngology	66.7	46.7	20.0	10.93
Psychiatry	89.3	75.0	78.6	10.46

consequences for their behavior and feeling throughout the course of their careers. In this investigation the existence of these two types of conflict was established independently. Beliefs about the suitability of specialties for women were measured empirically, and the nature of the specialty time demands were based on reports in the literature. However, the present data suggests the possibility that these two types of conflict do not continue to cause strain which is then manifested in a reduced level of professional activity and an increased feeling that personal life suffers for all women physicians.

Goode (1960) conceptualized the management of multiple roles in terms of role bargains and selection among alternative roles and suggested several possible strategies for dealing with strain. One specific mechanism he proposed was the elimination of certain roles from the role set. On the basis of her research with women lawyers, Epstein (1970) described a variety of mechanisms which they use for dealing with strain from their professional roles, among them the reduction of the number of statuses in the status set.

It is possible that the women physicians in this investigation have used this mechanism, in the form of eliminating marital and/or family statuses, as a means of preventing or reducing strain. This would mean that the effects of the objective conflict conditions on behavior and feelings would be mediated by the degree of family commitment of these women. In the original model proposed

in this investigation, marital and family status were conceptualized as ahistorical variables, measured at one point in time and seen strictly in terms of contemporary time demands. The results now suggest the need to reconceptualize this variable in a longitudinal framework in order to reflect decisions about commitment or life focus. To implement this approach, degree of commitment to family is measured by whether they had ever married or had children, rather than, as earlier, by current marital or parental status.

The degree of family, as opposed to career, orientation could be a mechanism for dealing with strain, mediating the effects of conflict of behavior and feelings. It would be expected that the choice of commitment to career alone would reduce strain and allow for a high level of professional activity, and a lower possibility of feeling that personal life suffers. On the other hand, a commitment to family, while trying to maintain a career as well, would increase strain, that is, the feeling that personal life suffers.

Evidence that eliminating marital and family responsibilities is a way of dealing with conflict is provided by data concerning the distribution of the level of professional activity and the feeling that personal life suffers among women who differ with regard to whether or not they have ever been married or had children. These findings are presented in Tables 13 to 16. As shown in Tables 13 and 14, a greater percentage of women physicians who were never

TABLE 13

Percentage of Women Physicians With Low, Moderate, and High Levels of Professional Activity, by Marital Status

Marital Status	% With Low Level of Professional Activity	% With Moderate Level of Professional Activity	% With High Level of Professional Activity	(n)
Never married	23	32	45	(31)
Ever married	34	40	26	(62)

TABLE 14

Percentage of Women Physicians With Feelings That Personal Life Suffers By Marital Status

Marital Status	% Who Do Not Feel That Their Personal Life Suffers	% Who Feel That Their Personal Life Suffers	(n)
Never married	48	52	(31)
Ever married	31	69	(62)

TABLE 15

Percentage of Women Physicians With Low, Moderate, and High Levels of Professional Activity, by Family Status

Marital Status	% With Low Level of Professional Activity	% With Moderate Level of Professional Activity	% With High Level of Professional Activity	(n)
Never had children	26	37	37	(46)
Ever had children	34	38	28	(47)

TABLE 16

Percentage of Women Physicians With Feelings That Their Personal Life Suffers, by Family Status

Marital Status	% Who Do Not Feel That Their Personal Life Suffers	% Who Feel That Their Personal Life Suffers	(n)
Never had children	46	54	(46)
Ever had children	28	72	(47)

married than those who were ever married, had a high level of professional activity and reported that they did not feel that their personal life suffered. Similarly, as shown in Tables 15 and 16, a greater percentage of women who had never had children than those who had ever had children had a high level of professional activity and reported that they did not feel that their personal life suffered. Thus, for these women reducing the number of family related statuses seems to reduce the probability of feeling strain due to problems in the profession, freeing them to achieve a higher level of professional activity and reducing feelings of being torn due to the conflicting demands of home and professional commitments.

A distinction can be made among women who try to combine a family and a career, on the basis of the degree of their commitment to their work. The findings of this investigation suggest that among these women, those who are not as committed to their work, experience less difficulty than those who try to maintain a high level of professional commitment. Thus, as shown in Table 17, among women who have ever been married, those with a lower level of professional activity are less likely to feel that their personal life suffers than those who try to maintain a moderate or high level of professional activity. Table 18 shows the same relationship for women who have ever had children. It would appear then, that among women who chose to try to combine a family and a career those who are

TABLE 17

Percentage of Women Who Feel That Their Personal Life Suffers, By Marital Status and Level of Professional Activity

Marital Status and Level of Professional Activity	% Who Do Not Feel That Their Personal Life Suffers	% Who Feel That Their Personal Life Suffers	(n)
Never married			
Low Professional Activity	57	43	(7)
Moderate Professional Activity	60	40	(10)
High Professional Activity	36	64	(14)
Ever Married			
Low Professional Activity	38	62	(21)
Moderate Professional Activity	28	72	(25)
High Professional Activity	25	75	(16)

TABLE 18

Percentage of Women Who Feel That Their Personal Life Suffers By Family Status and Level of Professional Activity

Family Status and Level of Professional Activity	% Who Do Not Feel That Their Personal Life Suffers	% Who Feel That Their Personal Life Suffers	(n)
No children			
Low Professional Activity	58	42	(12)
Moderate Professional Activity	47	53	(17)
High Professional Activity	35	65	(17)
Children			
Low Professional Activity	31	69	(16)
Moderate Professional Activity	23	77	(17)
High Professional Activity	28	72	(14)

committed to their family, as opposed to their work, experience the least difficulty, while those who try to do both well experience the greatest problem in reconciling the demands of the two areas. Reduction of commitment to professional activity may also be seen as utilization of a mechanism for reducing strain. Epstein (1970) observed that women professionals reduced strain by reducing the number of contacts involved in their role relationships. In this case, they did not entirely eliminate their professional status, but they did reduce their involvement in roles related to their profession.

Furthermore, by looking at the percentage of women who report that they feel that their personal life suffers in each of these groups, it appears that about the same percentage of women with marital and/or family commitments and a low level of professional activity, as women without these commitments, but with a high level of professional acitivity, feel that their personal life suffers. Thus, there seems to be a kind of trade-off: women who chose to be committed either to work or to marriage and/or family are as likely to feel that their personal life suffers. If they chose to be committed to neither, they are less likely to have this feeling, and if they chose to be committed to both, they are more likely to experience it. Although the numbers in each category are small, the trend within each of the fields is similar to the overall trends for all of these findings.

This approach, using a longitudinal perspective, points to the need to take into account these women's life choices throughout their careers rather than their behavior at one point in time alone. From the data available in this investigation, it is impossible to tell whether the relationships found are due to the effects of selection or to the effects of choices made once the women are already in the field. It seems probable that both factors are involved. Certainly it is likely that women are aware of the problems they are likely to encounter in medical specialties before they enter the field, and make their decisions accordingly. During the course of their medical education and training they have the opportunity to learn about the demands of the various specialties as well as the stereotypes associated with them, and they may at that point make some choices about where they want to devote their time and energy, i.e. how strongly they want to be committed to family and/or career. However, it is also possible that some of these choices are made once they have already entered the field and have actually begun to experience some of the problems involved. On the basis of the high percentage of women who report feeling that their personal life suffers, it seems likely that they were not fully aware of all the problems they were likely to encounter or their abilities to deal with them before making their decisions.

It is also likely that these women may continue to modify their professional and family related behaviors during the course of their careers in other ways. Besides the mechanisms for reducing strain described above, there are a variety of other strategies they could use, including those for coping with the routine problems of daily living suggested by Epstein (1970). The need for using these strategies and the types employed will, in part, be determined by the nature of their personal and professional contexts. The amount of strain they encounter and their ability to deal with it will be influenced by the nature of the attitudinal and behavioral supports they receive in both their family and work situations. Epstein (1970) conceptualized these factors in terms of social-structural arrangements which influence the experience of role strain and ability to deal with it. Among favorable conditions she included: sharing a field or a practice with a husband and having friends in the same field.

Further research in this area would involve testing a causal model which included a measure of women's relative commitment to family and career as a mediating factor between the various types of conflict and behavior and feelings. This would include information on both predispositions before entering the field and choices made once in the field. On the one hand, this would involve information on degree and accuracy of awareness of potential problems, factors considered in choice of

field, and feelings about differential importance of family and career. On the other hand, it would involve information on perception of conflict awareness of sources of strain and various strategies used to cope with strain once already in the field. It would also include information on other factors, including the nature of their social environment, which may influence their ability to deal with the problems they have encountered.

APPENDIX 1

Questionnaire Filled Out By Physicians On Staff Of Mount Sinai School of Medicine

Recommendations [illegible]
by Women Physicians

Surgery
highly recommended   mipoint   not highly r

Ophthalmology
highly recommended   midpoint   not highly r

Family medicine
highly recommended   midpoint   not highly r

Administrative medicine
highly recommended   midpoint   not highly r

Neurosurgery
highly recommended   midpoint   not highly r

Urology
highly recommended   midpoint   not highly r

Psychiatry
highly recommended   midpoint   not highly r

Neurology
highly recommended   midpoint   not highly r

Obstetrics-gynecology
highly recommended   midpoint   not highly

Dermatology
highly recommended   midpoint   not highly

Otolaryngology
highly recommended   midpoint   not highly

Rehabilitation medicine
highly recommended   midpoint   not highly

Child psychiatry
highly recommended   midpoint   not highly

Orthopaedics
highly recommended   midpoint   not highly

Pathology
highly recommended   midpoint   not highly

Community medicine
hgihly recommended   midpoint   not highly

Internal medicine
highly recommended   midpoint   not highly

Radiology
hgihly recommended   midpoint   not highly

Pediatrics
highly recommended   midpoint   not highly

Anesthesiology
highly recommended   midpoint   not highly

APPENDIX 2

Letter Sent to Physicians On Staff of Mount Sinai School of Medicine To Ask for Their Cooperation

MOUNT SINAI SCHOOL OF MEDICINE
of The City University of New York
FIFTH AVENUE AND 100TH STREET · NEW YORK, N.Y. 10029

Department of Community Medicine

Dear Dr.

I am writing to request your cooperation in a study which is being conducted by a graduate student of the City University of New York, Mrs. Dalia Ducker. Mrs. Ducker is a candidate for the Ph.D. degree in the program of social psychology and is being supervised by Dr. Barbara Dohrenwend. The study itself is concerned with attitudes toward women physicians by teachers of medicine. They have asked me to sponsor this study among members of the Mount Sinai School of Medicine faculty and, I hope you will concur in my judgement that, as members of the City University of New York, we should cooperate in such research wherever possible.

Mrs. Ducker will be contacting you shortly to arrange an appointment for a short interview designed to last approximately fifteen minutes. You are, of course, under no obligation, but if it is at all possible, I urge that you agree to participate.

If there are any questions, please do not hesitate to call on me.

Sincerely yours,

Samuel W. Bloom

Samuel W. Bloom, Ph.D.
Professor of Sociology
in Community Medicine

SWB:mb

APPENDIX 3

Letter Sent to Sample of Male and Female Physicians To Ask for Their Cooperation

The City University of New York
Graduate Center: 33 West 42 Street, New York, N.Y. 10036
212/790-4594

Center for Social Research

November 22, 1971

This letter is to ask your cooperation in a research study being carried out under the auspices of the Center for Social Research of the City University of New York. The purpose of the study is to gather information on physicians in selected specialties. You have been chosen to represent the area of surgery, and your participation in the study is extremely critical for its successful completion.

A member of our staff will be calling you within a week or so to arrange an appointment to interview you over the telephone at a time most convenient to you. The interview is expected to last 30 to 45 minutes.

Your responses, of course, will be held in complete confidence, and no individuals will be identified in reports of the findings. We will be happy to furnish you with a copy of the study report when it is completed.

Thank you in advance for your cooperation.

Sincerely yours,

Dalia Ducker

Dalia Ducker
Research Associate

APPENDIX 4

Letter Sent To Male and Female Physicians Who Refused To Participate With Additional Information On Study

The City University of New York
Graduate Center: 33 West 42 Street, New York, N.Y. 10036
212/790-4594

Center for Social Research

Dear Dr.

This letter is to ask again for your cooperation in our research study. We realize that you are busy and that there are many demands on your time, but we hope that if you know more about our study you will agree that it is important and find time to participate.

As you know, this study is being conducted under hte auspices of the Center for Social Research of the City University of New York. It is being sponsored by Dr. Barbara Dohrenwend of the Social Psychology Department of the City University Of New York Graduate Division, with the joint sponsorship of Dr. Samuel Bloom as Director of the Division of Behavioral Sciences in the Community Medicine Department of the Mount Sinai School of Medicine. It is being funded by a grant from the National Science Foundation.

The study is designed to investigate differences in the experiences of doctors in various specialties, with focus on the stresses and strains encountered in each field. Doctors were selected from lists of board certified specialists as representing physicians with the greatest commitment to their fields.

The results of the study will be submitted for publication in professional journals and reported at professional meetings. They will also be made available to interested people in both the fields of psychology and medicine.

One of our staff will be calling you again within a week or so to schedule an appointment for an interview at your convenience, and we very much hope that you will be able to participate.

Thank you for your cooperation.

Sincerely yours,
Dalia Ducker
Dalia Ducker
Research Associate

APPENDIX 5

Letter of Support Sent to Male and Female Physicians Who Refused to Participate By Member Of Mount Sinai School of Medicine Staff

MOUNT SINAI SCHOOL OF MEDICINE
of The City University of New York
FIFTH AVENUE AND 100TH STREET • NEW YORK, N.Y. 10029

Department of Community Medicine

I am writing to express my support and endorsement of a study by Mrs. Dalia Ducker for which you have been selected as a participant. Such participation is, of course, entirely voluntary; however, I urge that you make every effort to cooperate in what I believe is a very important research inquiry.

Mrs. Ducker is doing a study which compares physicians in different specialties. The major question of the research is concerned with how a physician resolves various strains which appear to be inherent in the demands of the physician's professional role. The research is under the supervision of Professor Barbara Dohrenwend who is a member of the psychology faculty of the Graduate Center of the City University of New York. The National Science Foundation supports this work, and my own department adds a strong endorsement.

You will soon be contacted by telephone to arrange an appointment for a telephone interview. I believe you will find this procedure, which has been carefully tested, to be interesting and that it requires a minimum of your time. Your cooperation will be of great value in what I consider to be a useful and important study.

Sincerely yours,

Samuel W. Bloom, Ph.D.
Professor of Community Medicine

Director of Division of Behavioral Science in Medicine

SWB:mb

APPENDIX 6

Interview Schedule for Male and Female Physicians

INTRODUCTION

Hello, Dr.________________ this is (NAME), from the Center for Social Research of the City University of New York in New York City. I believe you received a letter concerning the study we are conducting among physicians in your area. I am calling now to arrange for an appointment to interview you at any time it is convenient. I will be conducting the interview over the telephone and we will need about 30 minutes to complete it. How about ________________________________, would that be convenient?

STUDY OF PHYSICIANS

LET'S START BY TALKING ABOUT YOUR PROFESSIONAL ACTIVITIES.

1. Do you have a private practice in which your income comes from patient fees, or a salaried position, or both?

PRIVATE PRACTICE	1 (ASK A & C)
SALARIED POSITION	2 (ASK B)
BOTH	3 (ASK A & B)
NOT CURRENTLY WORKING	4 (ASK D)

A. (IF PRIVATE PRACTICE OR BOTH):

a. Do you practice as an individual, with a partner, or in a group?

INDIVIDUAL	1
PARTNERSHIP	2
GROUP	3

b. How many hours do you usually devote to your practice each week?

(#): __________

(IF BOTH, GO TO B; IF PRIVATE PRACTICE ONLY, GO TO C.)

B.(IF SALARIED POSITION OR BOTH):

a. Where is your salaried position, in a hospital, a clinic, a medical school, in a business or industry, with the federal or state government, or in some other setting?

JOB #1		NAME
HOSPITAL	1	__________
CLINIC	2	__________
MEDICAL SCHOOL	3	__________
BUSINESS OR INDUSTRY	4	__________
FEDERAL GOVERNMENT	5	__________
STATE GOVERNMENT	6	__________
OTHER: __________	7	__________

b.Do you hold any other slaried positions?

YES	1 (ASK (1))
No	2

(1)(IF YES):
Where ?

JOB #2	NAME
HOSPITAL	1 __________
CLINIC	2 __________
MEDICAL SCHOOL	3 __________
BUSINESS OR INDUSTRY	4 __________
FEDERAL GOVERNMENT	5 __________
STATE GOVERNMENT	6 __________
OTHER: __________	7 __________

JOB #3		NAME
HOSPITAL	1	____
CLINIC	2	____
MEDICAL SCHOOL	3	____
BUSINESS OR INDUSTRY	4	____
FEDERAL GOVERNMENT	5	____
STATE GOVERNMENT	6	____
OTHER: ____	7	____

JOB #4		NAME
HOSPITAL	1	____
CLINIC	2	____
MEDICAL SCHOOL	3	____
BUSINESS OR INDUSTRY	4	____
FEDERAL GOVERNMENT	5	____
STATE GOVERMEMNT	6	____
OTHER: ____	7	____

c. (FOR EACH JOB):
How many hours did you work do you usually work on this job each week?

JOB #1	(#): ____
JOB #2	(#): ____
JOB #3	(#): ____
JOB #4	(#): ____

d. (FOR EACH JOB):
What is you title or position with (NAME OF EMPLOYER)?

JOB #1 ____

JOB #2 ____

JOB #3 ____

JOB #4 ____

e. (FOR EACH JOB):
What duties does this job include (READ ALTERNATIVES)

JOB #1		JOB #2	
ADMINISTRATION	1	ADMINISTRATION	1
TEACHING	2	TEACHING	2
RESEARCH	3	RESEARCH	3
PATIENT CARE	4	PATIENT CARE	4
CONSULTATIONS	5	CONSULTATIONS	5
SUPERVISION	6	SUPERVISION	6
OTHER: ____	7	OTHER: ____	7

JOB #3		JOB #4	
ADMINISTRATION	1	ADMINSTRATION	1
TEACHING	2	TEACHING	2
RESEARCH	3	RESEARCH	3
PATIENT CARE	4	PATIENT CARE	4
CONSULTATIONS	5	CONSULTATIONS	5
SUPERVISION	6	SUPERVISION	6
OTHER:____________	7	OTHER: ____________	7

f. (IF CONSULTATION NOT MENTIONED AS PART OF ANY OF THE JOBS): Are you ever called in as a consultant?

YES	1 (ASK (1))
NO	2

(1) (IF YES):
All together, how many times a month do you do this type of consultation?

(#): __________

g. Are you currently doing any research?

YES	1 (ASK (1))
NO	2

(1) (IF YES):
All together, how many hours a week do you usually spend on your research?

(#): __________

(GO TO QUESTION 2)

C. (IF PRIVATE PRACTICE ONLY):

a. Are you ever called in as a paid consultant on a case?

YES	1 (ASK (1))
NO	2

(IF YES):
(1) How many times a month do you usually do this type of consultation?

(#): __________

b. Are you currently doing any research?

YES	1 (ASK (1))
NO	2

(IF YES):
(1) How many hours a week do you usually spend on you research?

(#): __________

(GO TO QUESTION 2)

D. (IF CURRENTLY NOT WORKING):
a. When was the last time you worked for pay?

(TIME FROM PRESENT):________________

b. In you last work experience, did you have a private practice in which your income came from patient fees, or a salaried position, or both?

PRIVATE PRACTICE	1
SALARIED POSITION	2
BOTH	3

c. Why did you stop working?

PREGNANCY AND CHILDBIRTH	1
FAMILY RESPONSIBILITIES	2
HEALTH PROBLEMS	3
NO SUITABLE JOB AVAILABLE	4
RETIRED	5
OTHER: ________________	6

d. Do you plan to return to work?

YES	1 (ASK (1))
NO	2
DON'T KNOW	3

(IF YES):
(1) When do you think that will be?

(TIME FROM PRESENT): ________________

2. (IF MEDICAL SCHOOL NOT MENTION IN QUESTION 1):
Do you hald a non-salaried staff appointment at any medical schools?

YES	1 (ASK A)
NO	2

A. (IF YES):
a. At what schools do you hold appointments?

SCHOOL #1________________

SCHOOL #2________________

SCHOOL #3________________

SCHOOL #4________________

(FOR EACH SCHOOL):
b. What is your title at (SCHOOL)?

SCHOOL #1________________________________

SCHOOL #2________________________________

SCHOOL #3________________________________

SCHOOL #4________________________________

3. Do you do any volunteer medical work for which you do not receive pay?

YES	1 (ASK A)
NO	2

A. (IF YES):
a. Where do you do this work?

PLACE #1________________________________

PLACE #2________________________________

PLACE #3________________________________

PLACE #4________________________________

b.(FOR EACH PLACE):
What is the nature of the work you do at (NAME)?

PLACE #1________________________________

PLACE #2________________________________

PLACE #3________________________________

PLACE #4________________________________

c. (FOR EACH JOB):
How many hours of this work do you usually do each week?

PLACE #1	(#): ________
PLACE #2	(#): ________
PLACE #3	(#): ________
PLACE #4	(#): ________

4. At what hospitals do you have admitting privileges?

HOSPITAL #1________________________________

HOSPITAL #2________________________________

HOSPITAL #3________________________________

HOSPITAL #4________________________________

(#): ________

5. Do you belong to a journal club or any other academic discussion group?

YES	1	(ASK A)
NO	2	

A. (IF YES):
a. How many meeting do you usually attend a month?

(#): ________

6. What was the last professional convention you attended?

(NAME): ____________________

SOME ATTENDANCE	1	(ASK A,B,& C)
NEVER	2	

(UNLESS NEVER):
A. When was that?

(TIME FROM PRESENT): ____________

B. How many professional conventions do you usually attend a year?

(#): ________

C. Have you ever coauthored or presented a paper at a professional convention?

YES	1	(ASK A)
NO	2	

a(IF YES):
How many times?

(#): ________

7. Which professional or scientific journals do you subscribe to or read regularly?

JOURNAL #1 ____________________

JOURNAL #2 ____________________

JOURNAL #3 ____________________

JOURNAL #4 ____________________

JOURNAL #5 ____________________

JOURNAL #6 ____________________

JOURNAL #7 ____________________

JOURNAL #8 ____________________

JOURNAL #9 ____________________

JOURNAL #10 ____________________

(#): ________

8. Have you ever published any articles in professional or scientific journals?

YES	1	(ASK A)
NO	2	

A. (IF YES):
How many articles have you published?

(#): ________

9. Are you currently on the editorial board of any professional journals?

YES	1	(ASK A)
NO	2	(ASK B)

A. (IF YES):
Which ones?

JOURNAL #1________________________________

JOURNAL #2________________________________

JOURNAL #3________________________________

(GO TO 10.)

B. (IF NO):
Have you ever been on a journal editorial board?

YES	1	(ASK a)
NO	2	

a. (IF YES):
Which ones?

JOURNAL #1________________________________

JOURNAL #2________________________________

JOURNAL #3________________________________

10. Have you written or contributed a chapter or article to any professional or scientific book?

YES	1	(ASK A)
NO	2	

A. (IF YES):

a. How many books have you contributed to?

(#): ________

b. How many books have you written either alone or with others?

(#): ________

11. Have you ever been invited to be a guest lecturer at a medical school or hospital?

YES	1	(ASK A)
NO	2	

A. (IF YES):
   a. How many times?

(#): ________

12. Have you ever received any special honors or awards for your work in (SPECIALTY)?

YES	1	(ASK A)
NO	2	

A. (IF YES):
   a. What are they?

____

____

____

____

____

(#): ________

13. What professional organizations do you belong to?

ORGANIZATION #1______________________________

ORGANIZATION #2______________________________

ORGANIZATION #3______________________________

ORGANIZATION #4______________________________

ORGANIZATION #5______________________________

ORGANIZATION #6______________________________

ORGANIZATION #7______________________________

ORGANIZATION #8______________________________

ORGANIZATION #9______________________________

ORGANIZATION #10______________________________

(#): ________

(UNLESS NONE):
A. Do you currently hold any offices or committee memberships in any of these organizations?

YES	1	(ASK a)
NO	2	(ASK b)

a. (IF YES):
What are they?

ORGANIZATION #1________________

ORGANIZATION #2________________

ORGANIZATION #3________________

ORGANIZATION #4________________

ORGANIZATION #5________________

ORGANIZATION #6________________

ORGANIZATION #7________________

ORGANIZATION #8________________

ORGANIZATION #9________________

ORGANIZATION #10________________

(GO TO 14.)

b. (IF NO):
Have you held any offices or committee memberships in these organizations in the past?

YES	1	(ASK (1))
NO	2	

(1) (IF YES):
What were they?

ORGANIZATION #1________________

ORGANIZATION #2________________

ORGANIZATION #3________________

ORGANIZATION #4________________

ORGANIZATION #5________________

ORGANIZATION #6________________

ORGANIZATION #7________________

ORGANIZATION #8________________

ORGANIZATION #9________________

ORGANIZATION #10________________

NOW LET'S TALK ABOUT YOUR HOME LIFE.

14. Are you now married, divorced, separated, widowed, or never married?

MARRIED	1	(ASK A)
DIVORCED	2	(ASK A)
SEPARATED	3	(ASK A)
WIDOWED	4	(ASK A)
NEVER MARRIED	5	

A. (IF EVER MARRIED):
a. How long have you been (MARRIED) (DIVORCED) (SEPARATED) (WIDOWED)?

(#): ________

b. Do you have any children?

YES	1	(ASK (1) & (2))
NO	2	

(IF YES):
(1) How many?

(#): ________

(2) What are their ages?

(AGES): ________ ________ ________ ________ ________ ________

(WOMEN ONLY; OMIT FOR MEN):
15. Do you have any paid or unpaid help to help you with your housework on a regular basis?

PAID	1	(ASK A)
UNPAID	2	(ASK A)
BOTH	3	(ASK A)
NEITHER	4	

A. (IF ANY HELP):
a. About how many hours do they usually work a week?

PAID: (#): ________
UNPAID: (#): ________

(WOMEN WITH CHILDREN UNDER 18 ONLY; OMIT FOR MEN):
16. Do you have any (other) paid or unpaid help to help you take care of your children on a regular basis?

PAID	1	(ASK A)
UNAPID	2	(ASK A)
BOTH	3	(ASK A)
NEITHER	4	(ASK B)

A. (IF ANY HELP):
a. About how many hours do they usually work a week?

PAID: (#): ________
UNPAID: (#): ________

B.(IF NEITHER):
a. Do you make any other special arrangements to help you take care of your children?

YES	1	(ASK (1))
NO	2	

(IF YES):
(1)What arrangements do you make?

(ASK ALL RESPONDENTS):
17.How many days a week do you spend entirely without trying to do any professional work?

(#): ________

18. How many days of vacation during which you did not do any professiona work did you take this year?

(#): ________

A. How many days of vacation do you usually take a year?

(#): ________

19. Do you have any hobbies or special interests on which you spend a good deal of time?

YES	1	(ASK A)
NO	2	

A. What are they?

(#): ________

NOW LET'S TALK ABOUT YOUR SOCIAL ACTIVITIES.

20. Last month, about how many times did you go to the movies, theater, or other social activities?

(#): ________

A. How many times a month do you usually go out socially?

(#): ________

21. Last month, about how many times did you entertain guests in your home?

(#): ________

A. How many times a month do you usually entertain guests in your home?

(#): ________

22. What nonprofessional clubs or organizations do you belong to?

ORGANIZATION #1____________________

ORGANIZATION #2____________________

ORGANIZATION #3____________________

ORGANIZATION #4____________________

ORGANIZATION #5____________________

ORGANIZATION #6____________________

SOME (#): ________		1 (ASK A)
NONE		2

A. (UNLESS NONE):
   a. Do you currently hold any offices or commitee memberships in any of these groups?

YES		1 (ASK (1))
NO		2

(1) (IF YES):
    What are they?

ORGANIZATION #1____________________

ORGANIZATION #2____________________

ORGANIZATION #3____________________

ORGANIZATION #4____________________

ORGANIZATION #5____________________

ORGANIZATION #6____________________

23. Think of the five people who are your closest friends, the ones you see most often socially:
 A. How many of these are physicians?

SOME (#): ________		1 (ASK a)
NONE		2

a. (UNLESS NONE):
   (1) How many of these are men?

(#): ________

   (2) How many of these are women?

(#): ________

24. When was the last time you met informally with a professional colleague, for example for lunch or coffee or a drink?

SOMETIMES	1	(ASK A)
NEVER	2	

A. (UNLESS NEVER):
a. Was it with a male or female colleague or both?

MALE	1
FEMALE	2
BOTH	3

B. . About how many times a month do you usually do this

(#): __________

NOW LET'S TALK ABOUT SOME OF YOUR FEELINGS ABOUT YOUR WORK.

25. Do you plan to continue working as you are now one year from now?

YES	1	
NO	2	(ASK A)
DON'T KNOW	3	

A. (IF NO):
a. What changes do you plan to make?

LEAVE WORK	1
CHANGE TYPE OF WORK	2
INCREASE HOURS WORKED	3
DECREASE HOURS WORKED	4
CHANGE SPECIALTY	5
LEAVE MEDICINE	6
DON'T KNOW	7
OTHER: __________	8

26. Do you plan to continue working as you are now five years from now?

YES	1	
NO	2	(ASK A)
DON'T KNOW	3	

A. (IF NO):
a. What changes do you plan to make?

LEAVE WORK	1
CHANGE TYPE OF WORK	2
INCREASE HOURS WORKED	3
DECREASE HOURS WORKED	4
CHANGE SPECIALTY	5
LEAVE MEDICINE	6
DON'T KNOW	7
OTHER: __________	8

27. Since completing your medical training have you ever taken time off from your medical work?

YES	1 (ASK A)
NO	2 (ASK B)

A. (IF YES):
a. When was that?

TIME #1______________________________

TIME #2______________________________

TIME #3______________________________

TIME #4______________________________

TIME #5______________________________

TIME #6______________________________

b. How many months did you take off each time?

TIME #1______________________________

TIME #2______________________________

TIME #3______________________________

TIME #4______________________________

TIME #5______________________________

TIME #6______________________________

(GO TO 28.)

B. (IF NO):
a. Have there ever been times when you were tempted to take time off from your medical work?

YES	1 (ASK (1))
NO	2

(1) (IF YES):
When was that?

TIME #1______________________________

TIME #2______________________________

TIME #3______________________________

TIME #4______________________________

28. Can you think of any circumstances that would make you leave medicine permanently before retirement?

YES	1	(ASK A)
NO	2	

A. (IF YES):
What do you think they would be?

OWN HEALTH	1
FAMILY HEALTH	2
FAMILY RESPONSIBILITIES	3
FAMILY PROBLEMS	4
CHILDREN	5
MOVING	6
LOSS OF INTEREST	7
OTHER: ______________________	8

29. How much do you worry about your work, all the time, a lot, sometimes, not very much, or never?

ALL THE TIME	1
A LOT	2
SOMETIMES	3
NOT VERY MUCH	4
NEVER	5

30. How happy are you being a (SPECIALTY)? Are you very happy, pretty happy, or not too happy?

VERY HAPPY	1
PRETTY HAPPY	2
NOT TOO HAPPY	3

31. What do you enjoy most about being a (SPECIALTY)?

(LIST):

32. What do you enjoy least about being a (SPECIALTY)?

(LIST):

33. Have you ever regretted becoming a (SPECIALTY)?

YES	1	(ASK A)
NO	2	

A. (IF YES):
a. Why have you regretted it?

b. What other specialty would you chose instead?

34. How would you rate your ability as a (SPECIALTY) relative to most other physicians in your field? Would you say that you are much more outstanding than most, somewhat better than most, about the same as most, not quite as good as most, or much less outstanding than most?

MUCH MORE OUTSTANDING	1
SOMEWHAT BETTER	2
ABOUT THE SAME	3
NOT QUITE AS GOOD	4
MUCH LESS OUTSTANDING	5
DON'T KNOW	

35. How do you think you colleagues regard you relative to most other physicians in your field? Do you think you are much more respected than most, somewhat more respected than most, about as well respected as most, somewhat less respected than most, or much less respected than most?

MUCH MORE RESPECTED	1
SOMEWHAT MORE RESPECTED	2
ABOUT AS WELL RESPECTED	3
SOMEWHAT LESS RESPECTED	4
MUCH LESS RESPECTED	5

36. What is the main way you think your personal life suffers because of your professional life?

MARRIAGE	1
CHILDREN	2
HEALTH	3
PERSONAL WELL BEING	4
NONE	5
OTHER: ____________________	6

A. (IF MARRIED, AND MARRIAGE NOT MENTIONED):
a. Do you think your marriage suffers because of your professional life?

YES	1 (ASK (1))
NO	2

(1) (IF YES):
In what ways?

B. (IF HAS CHILDREN, AND CHILDREN NOT MENTIONED):
a. Do you think your children suffer because of your professional life?

YES	1 (ASK (1))
NO	2

(1) (IF YES):
In what ways?

37. How often do you feel that you don't have enough time to relax and enjoy yourself and do the things you like to do? Do you feel this way often, sometimes, rarely, or never?

OFTEN	1
SOMETIMES	2
RARELY	3
NEVER	4

38. Would you recommend medicine as a career for a son of yours?

YES	1	(ASK A)
NO	2	
OTHER: ______	3	

A. (IF YES):
a. Would you recommend (SPECIALTY) as a career for a son of yours?

YES	1	
NO	2	(ASK (1))
OTHER: ______	3	

(1) (IF NO):
Why not?

39. Would you recommend medicine as a career for a daughter of yours?

YES	1	(ASK A)
NO	2	
OTHER: ______	3	

A. (IF YES):
a. Would you recommend (SPECIALTY) as a career for a daughter of your

YES	1	
NO	2	(ASK (1))
OTHER: ______	3	

(1)(IF NO):
Why not?

40. (WOMEN ONLY;:OMIT FOR MEN):
Do you feel that being a women in (SPECIALTY) is at all a drawback?

YES	1	(ASK 2)
NO	2	
OTHER: ______	3	

A. (IF YES):
a. In what ways is it a drawback?

41. (WOMEN ONLY; OMIT FOR MEN):
Can you recall any instances when you think a male colleague disriminated against you because you were a woman?

YES	1(ASK B)
NO	2(ASK A)

A. (IF NO):
a. Can you think of any time a male colleague treated you unfavorably because you were a woman, however unimportant it may seem?

YES	1 (ASK B)
NO	2

B. (IF YES TO EITHER OF THE ABOVE):
a. Can you describe the most serious instance in which you think a male colleague discriminated against you or treated you unfavorably because you were a women?

b. How many times in your career has something like this or something nearly as serious as this happened to you?

(#): ________

c. What effect do you think this experience and similar experiences have had on your career?

(ASK ALL RESPONDENTS):
NOW LET'S TALK ABOUT YOUR TRAINING AND BACKGROUND.

42. Where did you do to medical school?

(NAME):

43. At what hospital did you do your internship?

(NAME):

44. At what hospital did you do your residency?

(NAME):

45. How many years of residency training did you have?

(#): ________

46. Did you have any other medical training after your residency a fellowship or any other advanced training?

YES	1 (ASK A)
NO	2

A. (IF YES):
a. What was the training in?

b. At what hospital did you have this training?
(NAME):

c. How many years of this training did you have?

(#): ________

47. Do you currently have a subspecialty or one area of (SPECIALTY) in which you do most of your work?

YES	1 (ASK A)
NO	2

A. (IF YES):
a. What is it?

48. Do you hold board certification in any other specialty besides (SPECIALTY)?

YES	1 (ASK A)
NO	2

A. (IF YES):
a. In what specialty?

49. Did you ever practice in any other field of medicine besides (SPECIALTY)?

YES	1 (ASK A)
NO	2

A. (IF YES):
a.What other field did you practice?

b. How long did you practice in it?

(#): ________

(IF NOT IN IT NOW):
c. Why did you leave that field?

50. When did you decide to go into medicine?

AGE: ________

BEFORE HIGH SCHOOL	1
DURING HIGH SCHOOL	2
DURING COLLEGE	3
AFTER COLLEGE	4
DON'T KNOW	5

51. When did you decide to go into (SPECIALTY)?

AGE: ________

BEFORE HIGH SCHOOL	1
DURING HIGH SCHOOL	2
DURING COLLEGE	3
AFTER COLLEGE	4
DURING MEDICAL SCHOOL	5
DURING INTERNSHIP	6
AFTER INTERNSHIP	7
DON'T KNOW	8

52. What was your main reason for chosing(SPECIALTY)?

A. Were there any other reasons?

YES	1 (ASK a)
NO	2

a. (IF YES):
(1)What were they?

53. Did you seriously consider any other specialty?

YES	1 (ASK A)
NO	2

A. (IF YES):
a. What other specialties did you consider?

b. Why did you decide against them?

54. Was there anyone in particular who influenced you in your choice of (SPECIALTY)?

YES	1 (ASK A)
NO	2

A. (IF YES):
Who was that?

MOTHER	1
FATHER	2
SIBLING	3
OTHER RELATIVE	4
SPOUSE	5
TEACHER	6
OTHER: ________________	7

55. Was either of your parents a doctor?

YES	1 (ASK A)
NO	2 (ASK B)

A. (IF YES):
a. Which parent was a doctor?

MOTHER	1
FATHER	2
BOTH	3

b. (FOR EACH PARENT THAT WAS A DOCTOR):
(1) What specialty or field of medicine was he (she) in?

MOTHER: ______________________

FATHER: ______________________
(GO TO 56.)

B. (IF NO):
a. At the time you were about 18 what was your father's occupation?

b. How many years of schooling did he complete?

(#): ________

c. At the time you were about 18 did your mother work for pay?

YES	1 (ASK (1))
NO	2

(1) (IF YES):
What was her occupation?

d. How many years of schooling did she complete?

(#): ________

56. Did you live with both your parents throughout your childhood and adolescence?

YES	1
NO	2 (ASK A)

A. (IF NO):
a. Who did you live with?

MOTHER ONLY	1
FATHER ONLY	2
OTHER RELATIVE	3
NONRELATIVE	4
OTHER: ______________________	5

57. Where did you live during most of your childhood and adolescence?

(NAME):

58. (IF MARRIED):
What is your (SPOUSE'S OCCUPATION) at present?

	PHYSICIAN	1 (ASK A)
(SPECIFY: ______________)	OTHER PROFESSIONAL	2
(SPECIFY: ______________)	NONPROFESSIONAL	3
	RETIRED	4
	DOESN'T WORK	5

A. (IF PHYSICIAN):
a. What is the nature of your professional relationship?

	PARTNERS	1
	WORK IN SAME GROUP	2
	WORK FOR SAME EMPLOYER	3
	COLLABORATE ON RESEARCH	4
OTHER: ______________________________		5

References

American Medical Women's Association. Meeting medical manpower needs: The fuller utilization of the woman physician. Washington, D. C.: Woman's Bureau, U.S. Department of Labor, 1968.

Astin, H. S. The woman doctorate in America. New York: Russell Sage, 1969.

Bailyn, L. Notes on the role of choice in the psychology of professional women. Daedalus, 1964, 93, 700-710.

Bayor, A. E. & Astin, H. S. Sex differences in academic rank and salary among science doctorates in teaching. Journal of Human Resources, 1968, 3, 191-200.

Beshiri, P. H. The woman doctor. New York: Cowles Book Co., 1969.

Bird, C. Born female. New York: Picket Books, 1969.

Cronback, L. J. Coefficient alpha and the internal structure of tests. Psychometrika, 1951, 16, 297-334.

Coser, R. L. & Rokoff, G. Women in the occupational world: Social disruption and conflict. Social Problems, 1971, 18, 535-554.

Directory of medical specialists holding certification by American boards (14th ed.). Chicago: Marquis' Who Is Who, 1970.

Dykman, R. A. & Stalnaker, J. M. Survey of women physicians graduating from medical school 1925-1940. Journal of

Medical Education, 1957, 32, 3-38.

Epstein, C. F. Women and professional careers: The case of the woman lawyer. Unpublished doctoral dissertation, Columbia University, 1968.

Epstein, C. F. Woman's place. Berkeley: University of California Press, 1970.

Goldberg, P. Are women prejudiced against women? Transaction, 1968, 5, 28-30.

Goode, W. Community within a community: The professions. American Sociological Review, 1957, 22, 195-200.

Goode, W. A theory of role strain. American Sociological Review, 1960, 25, 483-496.

Gurin, G., Veroff, J., & Feld, S. Americans view their mental health. New York: Basic Books, 1960.

Holmstrom, L. L. The two-career family. Cambridge: Schenkman, 1972.

Kerlinger, F. N. & Pedhazur, E. J. Multiple regression in behavioral research. New York: Holt, Rinehart, and Winston, 1973.

Kosa, J. & Coker, R. E. The female physician in public health, conflict and reconciliation of the sex and professional roles. Sociology and Social Research, 1965, 49, 294-305.

Land, K. C. Principles of path analysis. In E. F. Borgotta (Ed.) Sociological Methodology. San Francisco: Jossey-Bass, 1969.

Lopate, C. Women in medicine. Baltimore: Johns Hopkins

Press, 1968.

Meron, R. K. Social theory and social structure. New York: Free Press, 1957.

Perrucci, C. C. Minority status and the pursuit of professional careers: Women in science and engineering. Social Forces, 1970, 49, 245-258.

Platt, L. I. Women doctors in Washington today. Journal of American Medical Women's Association, 1951, 6, 446-449.

Powers, L., Parmalee, R. D. & Weisenfelder, H. Practice patterns of women and men physicians. Journal of Medical Education, 1969, 44, 481-491.

Pullman, C. A. Women, medicine and misconceptions. Journal of American Medical Women's Association, 1963, 18, 563-573.

Rosenlund, M. L. & Oski, F. A. Women in medicine. Annals of Internal Medicine, 1968, 66, 1008-1012.

Rossi, A. Equality between the sexes: An immodest proposal. Daedalus, 1964, 93, 607-652.

Rossi, A. Barriers to the career choice of engineering, medicine, or science among American women. In J. A. Mattfeld and C. G. Van Aken (Ed.). Women and the scientific professions. Cambridge, Mass.: M.I.T. Press, 1965.

Simon, R. J., Clark, S. M. & Galway, K. The woman Ph.D.: A recent profile. Social Problems, 1967, 15, 221-236.

Schneider, M. J. Survey of women graduates from Cincinnati

medical colleges, 1879-1953. Journal of American Medical Woman's Association, 1954, 9, 400-401.

Shapiro, C. S., Stible, B. J. & Zelkovic, A. A. Careers of women physicians: A survey of women graduates of seven medical schools. Journal of Medical Education, 1968, 43, 1033-1040.

Shuval, J. T. Sex-role differentiation in the professions: The case of the Israeli dentist. Journal of Health and Social Behavior, 1970, 11, 236-244.

Thelander, H. E. & Weyrauch, H. B. Women in medicine. Journal of American Medical Association, 1952, 148.

U. S. Bureau of the Census. Census of Population, 1970.

Westling-Wilkstrank, H., Monk, M. A. & Thomas, C. B. Some characteristics related to the career status of women physicians. Johns Hopkins Medical Journal, 1970, 127, 273-286.

Williams, J. J. The woman physician's dilemma. Journal of Social Issues, 1950, 6, 38-44.

Williams, P. A. Women in medicine: Some themes and variations. Journal of Medical Education, 1971, 46, 584-591.

Winer, B. J. Statistical principles in experimental design. New York: McGraw-Hill, 1962.