The Household Production of Health and Women's Work:

New Directions in Medical Anthropology and Households Research

K. Brooke Olson

Recent discussions on the household production of health focus on how health and illness are produced in the household. New economic models of the household view it as a site where both production and consumption take place; neo-Marxist refinements have demonstrated that the household may also be characterized by conflicting interests, which often involve gender and age inequalities. This type of micro-level analysis is important in improving the understanding of health behaviors, which may then be used to increase the effectiveness of international health programs, many of which have been thus far criticized for their ineffectiveness. An analysis of women's roles towards this end is paramount as women are typically health managers in the domestic economy, a situation that is often noted, but on which research is scant. Recent studies have examined the impact of women's work, both inside and outside the home, on the production of household health. It is also essential to assess how resources (e.g., money, time, food, knowledge, health treatments, power) are distributed in the household and how this distribution may differentially affect the health of household members, especially women and children. Important topics which warrant further exploration in the household production of health literature include the impact of the domestic life-cycle, examination of the household production of health in female-headed households, and greater understanding of the role of men in household health, especially how it may inform international health policies.

Introduction

Health policies and programs in the international health arena (e.g., those sponsored by the World Health Organization)—at least for the past two decades—have attempted to "eradicate" or significantly eliminate major health problems the world over. As the effectiveness of these campaigns has been questioned, it has be-

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Department of Anthropology, University of Arizona, Tucson, AZ 85719

come increasingly evident that models of health and illness behavior require revision. The inadequacy of western-inspired technical fixes, such as ORT therapy and nutritional supplementation, indicates that health is not a simple matter that may be manipulated by outside forces, such as health and development agencies. Recent approaches such as the household production of health model have refocused the investigation of health and illness to the sociocultural unit within which they are experienced, and to a large extent treated, namely, the household. The dynamics and processes of health behaviors (such as the distribution of resources) must be understood at the micro level before effective and appropriate policies can be developed. Thus far, "little work in international health has addressed an understanding of the household" (Berman et al. 1990:6).

Many supra-household factors influence the manifestation of household health and illness—and these should not be ignored—including cultural beliefs, political and economic conditions, and socioculturally sanctioned inequalities. Salient micro-level processes which can be analyzed at the household level, and which impact health and illness, include: decision making processes; characteristics of caretakers (including *both* mothers and fathers); distribution of resources (such as food, health supplies, and time); cash income and distribution; education and employment of household members; and gender and age inequalities within the household. In this paper I investigate the impact of women's work, both domestic labor and wage labor, on the household production of health, focusing specifically on the health and illness experienced by women and children.

Household Production of Health: The Model

The household production of health framework is a by-product of recent economic conceptualizations of the household. Most notably, the new household economics (NHE) (Becker 1981) has redefined precepts of neoclassical economic theory to state that households are not merely consumers of goods in a quest for optimal utility (satisfaction), but that households also produce "commodities" such as health, leisure, and successful children, which are then "consumed" (Berman et al. 1990). Such commodities are produced through a combination of inputs including exter-

nal resources, household technology, knowledge, capabilities and time.

In keeping with neoclassical theory, the NHE presumes that households may choose from an array of possible pathways to arrive at the desired commodities. For example, offspring may be "produced" through a combination of rearing by parents and alternative caregivers (either kin or hired). As Berman et al. have noted, "Much of the NHE work has focused on the trade-offs between own-time and purchased goods and services in producing commodities" (1990:10). The notion of trade-offs will be important in the later discussion of women's work, time, childcare, and health.

Although theorizing about human behavior through economic modelling may be useful on some levels, the NHE has been criticized as inadequate for a variety of reasons. First of all, the assumption that households pick and choose from a field of choice in their pursuit of consumption is misleading when poverty is factored into the equation: Poor and marginalized households, and the individuals within them, often have little choice in what or how they produce and consume. Second, the NHE assumes that the household acts as a unit and has a joint utility function between its purportedly altruistic members, thus ignoring conflict, inequality, and power differentials within the household and the impact these have on health. Third, the NHE treats as irrelevant individual idiosyncrasies, cultural principles, and emotional factors, which may influence health and illness, but perhaps are not best described with a rationalistic, economic paradigm. As Popkin notes,

> In a sense, the irregular, individual variations in behavior represent a cacophony to economists and a symphony to psychologists. Nevertheless, the NHE framework is flexible enough to incorporate many factors previously considered outside of the domain of economics (1982: 538).

A final criticism is that the NHE ultimately portrays health as a commodity to be consumed. Is it prudent for social scientists to commodify health with their theories? Another pertinent question regards illness which is also produced and consumed by households—does that make it a commodity?

In a Marxist sense, viewing health as a commodity may be

appropriate because the structural inequalities in the access of health are highlighted. In this materialist view, however, the pursuit of health is conceptualized as a process involving the manipulation of various external factors (time, money, food, etc.). Healing has much to do with internal psychological and bodily processes as well and these should not be ignored (especially considering that many illnesses are self-limiting and left alone, the body will heal them). It may be difficult with a solely Marxist approach to articulate the notion of health as an external product with some indigenous beliefs that health or illness relates to internal processes such as humoral body balance/imbalance and inherent constitution.

The major benefit of using Marxist economic theory in the NHE paradigm is the recognition of the reality of conflict and exploitation within the household, as within the corporation or firm. From this orientation some have suggested that a bargaining model be applied to the household (Nash and Fernandez-Kelly 1983, Berk 1980), (or a transactions framework [Bruce 1989, Todaro 1969, Ben-Porath 1980]). These perspectives view household dynamics as involving negotiation, implicit/explicit contracts, and the division of responsibilities and resources within the household (Folbre 1986, Berman and Robinson 1988). For example, the question may be asked if better quality male health is being produced and consumed than female health, as Chen et al. (1981) suggest in their study of Bangladesh, where female mortality exceeded that of males by as much as 50 percent, and it was noted that males were the beneficiaries of more health promotion than females.

An example of how the transactions framework has been applied to household decision making in reference to fertility is the hypothesis that each spouse undertakes a cost-benefit analysis in relation to their reproductive goals (Bruce 1989, Folbre 1986, Berman and Robinson 1988). This model may hold some credence in reference to male children who are viewed as economic assets and female children who are neglected because they are not. However, such cost-benefit analyses assume that people have personal control over fertility, which may not always be the case, as Browner (1989) substantiates in her assessment of the serious health risks associated with unwanted pregnancies and abortion in many Latin American countries. As efficient lay economists in the transactions model, these women would not have initially become pregnant.

Because reproduction can be thought of, to some extent, as involving transactions, it must be analyzed for inherent gender inequalities: Are women bearing the costs while men reap secondary benefits?

These refinements to economically based theories of the household and health are improvements over the original NHE model because they acknowledge that both competition and cooperation operate within the household, and that "the boundary between self-interest and altruism does not necessarily coincide with the threshold of the home" (Folbre 1986:33). There may be competing economies within the household which operate along gender lines and there may be conflicting interests within the same caretaker facilitating either altruism or neglect towards certain offspring.

The scant, albeit growing, literature on the household production of health indicates that this paradigm is still in its formative stages and most of the detailed ethnographies on household dynamics and processes have yet to be done. It should be kept in mind however that economically based models, such as household production, NHE, and transactions analysis, are heuristic devices to be used judiciously. The complexities of the household cannot be explained purely economically because not all non-market production follows an economic rationale (Folbre 1986), as will be evident later in the discussion of positive deviance (Zeitlin et al. 1987, 1990). Households should be viewed as heuristic units as well because of the difficulties in developing broadly applicable definitions of households, which are fluid and dynamic entities (Netting et al. 1984). Additionally, household behavior is significantly influenced by external social, economic and cultural factors. What is of most salience in the household production of health model is the focus on micro-level processes which elucidate how health and illness are experienced, perhaps differentially, inside of the "black box" of the household.

Women's Work and Household Health

The impact of women's work on health has been a primary focus of research concerning the household production of health (Berman et al. 1990, Berman and Robinson 1988). This is probably due to the general association of women as health managers in the domestic economy and women's increasing participation in wage

labor. Assessing the impact of women's work on household health must include a discussion of 1), the nature of such work and the conditions under which it is performed, and 2), a consideration of how resources are allocated, or re-allocated, within the household, especially time, knowledge, food, health treatments, money and power. The differential distribution of such resources will have repercussions for all household members, but in this paper I will specifically focus on the health of women and children. I avoid employing the phrase "maternal and child health" for several reasons: it reifies the defining of women by their reproductive roles, ignoring the interplay between reproduction and production; it homogenizes women as "mothers" and overlooks the health concerns of single women, female sibling caretakers, and aging women; and the focus on maternal and child health seems to marginalize factors such as the occupational hazards that women face inside and outside of the household. A special emphasis on women's health is paramount because if the household is viewed as a system, then poor female caretaker health (mother, grandmother, eldest female sibling, etc.) will probably affect the health of other members. An examination of female health may also help illumine such little known processes as the caretaking of caregivers themselves when they are ill.

Characteristics of women's work

The onerousness of women's double work burden—in both the domestic and market economies—has recently received much scholarly attention (Bruce 1989; Doyal 1990a, 1990b; Folbre 1986; Zeitlin et al. 1987). Acharya and Bennett (1982), in their study of Nepal, found that when women's labor in both subsistence and market production was combined, women contribute 15 percent more to household income than do men, despite having two-thirds less cash income (Bruce 1989). Bruce observes that

> ... women's compensated labor combined with household production renders them substantial and sometimes predominant economic contributors in all developing regions of the world [1989:981].

The elucidation of the enormous productive contributions of women highlights how women's labor has previously been rendered "invisible." This is not surprising considering that men have

traditionally defined and claimed the economic sphere as their own, not recognizing the value of domestic production and women's work. The assumption that childrearing is not really work, or that it is leisure, has devalued the domestic labor of women (Folbre 1986). Outside of the household, the capitalist marketplace devalues women's labor by consistently paying women less wages and giving them less benefits—assuming they can even get jobs that are not already taken by males. The valuation of women's labor, therefore, is hindered two-fold, by both patriarchy and capitalism (Folbre 1986).

Many women are forced into the wage labor workforce through economic necessity, often because of a spouse who is not contributing sufficient resources to family welfare. Women's household responsibilities usually do not lessen, however, hence the common references to women's double workday. Other women may be so constrained by their domestic work that they are not able to engage in market activities for added income. As Nash (1989) assesses,

> The importance of the multiplicity of economic activities carried out by women in meeting domestic needs is rarely conceptualized as an opportunity cost for female wage employment, since the realm of economic behavior relates only to labor in market terms. Marianne Schmink poses this problem of the conflicting demands put on women in the wage earning market and the domestic economy. She shows that household mediation of the resources and income generated in the domestic context merits serious study because of the light it sheds on the articulation of productive and reproductive spheres (p. 223).

The household is the primary worksite for many women, therefore the nature of household work and the conditions under which it is performed must be examined (Doyal 1990a). Poverty and the sheer physical burdens of domestic labor in the Third World have an adverse impact on women's health. Doyal discusses this as the "feminization of poverty" because women often work longer hours and perform physically harder work than men (1990a). For example, women are usually responsible for the collection of household water supplies (Elmendorf and Isely 1983) and fuel for cooking. In these tasks alone, women may face great hardships in finding the resources and then transporting them back to the household, which may require carrying heavy loads long dis-

tances, not to mention the possible exposure to infectious environments such as unsanitary community water holes. These conditions are usually exacerbated by unequal capitalist development which often forces people into a wage-labor economy without providing such possible accoutrements of development such as higher standards of living and improved community resources.

The simultaneous and open-ended nature of women's work may also negatively affect health because there is little time for leisure or self-care. Sabean (1990) characterizes the rhythm of women's work in rural areas as "arduous, repetitive, detailed, and exact. Hoeing took long hours, yet could be broken off to hurry home to cook... Women did not gather to drink after the work was done, but hurried on to the next task" (p. 155). Male labor is characterized as taking place in "fits and starts," therefore men have more opportunities for leisure, relaxation, and calorie conservation (p. 154).

Domestic hazards such as accidents, polluted water, polluted air, and toxic chemicals must also be considered. Domestic accidents may be the result of substandard housing and may have a more adverse impact on women and children who spend more time at home. Likewise, household air pollution from fuel smoke, pesticides, and pathogens may affect women and children to a greater degree. Exposure to toxic chemicals may come in the form of direct contact with substances such as household cleaners, or through exposure to hazardous chemicals their partners have been exposed to in the workplace, such as asbestos (Doyal 1990a). There have been studies linking cervical cancer among women to carcinogens their partners encounter at work and then pass on through intercourse (Robinson 1981).

Doyal (1990a) addresses the impact of the psychological hazards of domestic work which are exacerbated by the performance of endless, repetitive tasks with little recognition from family or society. The demands of the "caring tricycle" may also be physically and psychologically demanding: "the lifetime of responsibility which begins with the care of children, continues into middle age with the care of an aging parent, and ends with responsibility for a frail partner" (Doyal 1990a:507). There may be psychological strains for women in their emotional housework duties as well, what Illich (1976) terms "shadow labor," referring to the manage-

ment of well-being and social relationships within the household (Doyal 1990a).

A significant part of the management of family well-being and health involves women in their roles as domestic healers, a job which may well be physically and emotionally taxing in conditions of poverty and household pathogenicity. McLain (1989) asserts that the role of women as household health practitioners has been either ignored or treated superficially, a situation which must be remedied if the dynamics of the household production of health are to be understood. Finerman (1989), in her study of Ecuadorian Saraguro Indians, addresses the fact that

> female heads of household in this population treat most family health complaints themselves, employing a complex system of therapeutic beliefs and practices in the treatment of a broad range of illnesses... [mothers] treat 86 percent of all family illness complaints and act as a first source of care for 75 percent of all ailments recorded (p. 25).

It is not enough merely to note that domestic healing, practiced by women, may be the first recourse in a hierarchy of resort, as some studies have done. In order to clarify the processes involved in the household production of health, the knowledge, skills, remedies, and pathways of illness treatment and health maintenance must be examined, and this includes the contributions not just of female domestic healers, but spouses and other household and non-household members as well.

In addition to all the responsibilities and perils of domestic work, women who engage in wage labor have an additional array of health demoting factors to contend with (Stellman 1977). Because the occupational hazards of wage labor have been dealt with more extensively, I will not reiterate them here (cf. Doyal 1990b). It is necessary to note, however, the extremely adverse conditions that many workers must tolerate in the Third World. Of special interest concerning women is their extensive participation in the informal economy. This is partly a phenomenon of the compatibility of this type of work with childrearing, but it also reflects the marginalization of women in the formal market economy.

Beneria and Roldan (1987) discuss the employment of women in industrial homework, or piecework subcontracting performed in the household, in Mexico City. This illegal activity represents the

sub-proletarianization of women's labor: they are not only subsidizing capitalism through the reproduction of the workforce but they are also subsidizing international companies directly by providing the space, electricity, or other resources needed to complete their work. These women receive low wages, have no benefits (health or otherwise), and must provide their own transportation to pick up their piecework and deliver the product (or part of a product) they are assembling. Women must adopt such devalued work as a household survival strategy, especially where the male head of household is absent, nonproductive, or is withholding his earnings from the family income. Such situations of men controlling cash resources for their own activities alludes to the importance of investigating the junctures between resource allocation within the household, women's work, and the household production of health.

Resource allocation in the household production of health

It is apparent in the literature on women's work and the household production of health that the way in which resources are allocated may have a profound effect on the health of women and children (Popkin and Doan 1991). The differential allocation of resources such as money, time, food, health treatments, knowledge, and power, may be the cause of conflict and inequality within the household. Power is a crucial resource in this scheme because those with the most power in the household, which is often dictated by sociocultural forces, are able to control the other key resources. Hoodfar (1988:122) defines power as: "(1) the actual decision-making authority over scarce material resources and (2) control of and access to knowledge of household resources."

Some researchers (cf. Basu and Basu 1991) hypothesize that women's employment in wage labor increases their power, authority, and decision making within the household by increasing their control over financial resources. While this seems to be consistent with some findings (Basu and Basu 1991), others have pointed out that an increase in women's cash income does not by itself increase their power within the household because men may appropriate women's wages (Bruce 1989), or the type of work women engage in may involve such little pay and low status that it has little effect on household power relations (Hoodfar 1988, Sothar and Kazi 1990).

Hoodfar (1988) states that it is not women's economic participation per se that increases their status and power, but the recognition of the value of their contribution by the immediate social group and the wider society. What this indicates is that no facile and sweeping generalizations about women's work and their status and power can be made, because the configurations of women, work, and power will vary in different cultural, social, and household contexts. Additionally, much to-do has been made over this issue but little investigation has been done linking "the effects of female employment on women's status and power... to differences in diets, health-care patterns, and other important determinants of women's and children's health" (Popkin and Doan 1991:695).

One of the most important resources discussed in the women's work and household health literature is time (Berman et al. 1990, Popkin and Doan 1991). Time can be used to enhance the home production of health or it can be exchanged for cash income. Time inputs can directly improve health through activities such as "breastfeeding, control of fecal contamination, control of the pathogenicity of food, water processing, and personal hygiene" (Popkin and Doan 1991:688). Time exchanged for cash, in the case of female employment, "tends to increase the implicit price of mother's time and lower average fertility rates. Women's hourly earnings, however low, are often greater than the pecuniary value of their work within the home" (Folbre 1986:16). Conversely, in areas where female economic opportunities are restricted, the opportunity cost of childrearing may remain low, perhaps increasing fertility rates and concomitant health problems, as in Kenya (Folbre 1986).

Women who engage in wage labor are likely to experience time constraints and role conflicts in their productive activities. The role strain model postulates that as women try to combine the multiple roles of parent, wife, and worker, they may experience deleterious health consequences and time restrictions, the latter of which necessitates certain trade-offs, such as arranging for additional caregivers and purchasing foodstuffs (Doyal 1990).

The issue of alternative caregivers is one that requires further ethnographic evidence before the impact on the household production of health can be assessed. It has been assumed that when women are employed outside of the home child health status may decrease as a consequence of an overburdened mother and the

utilization of purportedly inferior substitute caretaking (Zeitlin et al. 1987). Popkin and Doan (1991) assess the situation as follows:

> Third World women rely mainly on the family and neighbors to provide [substitute] care, which rarely is good for both mothers and children. Sibling care is often bad for child health and nutrition. Child care by children is widespread but only recently have programs been developed to focus on children... (p. 698).

Inadequate alternative care arranged by working mothers (or no substitute care) has been linked with an increase in child mortality (Basu and Basu 1991). This phenomenon may be exacerbated in adverse, unsanitary conditions where early supplementation to breastfeeding must be initiated because the women's work schedule reduces the frequency of breastfeeding (Levine 1988).

The assumption that alternative care is inadequate must not be accepted at face value—how much of the detrimental effect is due to improper care and how much is due to pathogenic environmental conditions? The ideology that "mother-care is always best" requires deconstruction—is this a justification to marginalize women in the capitalist workforce because they "belong" in the home fulfilling a caretaking destiny?

Some studies have indicated that surrogate childcare may not be detrimental: Paolisso et al. (n.d.) found that female sibling care was just as effective in preventing diarrhea as mother-care. This pattern of childcare raises the question of how the health and well-being of sibling caretakers is affected by their responsibilities in the household? Older girls in the household may be given arduous tasks to perform (e.g., water collection), they may be kept out of school to work while their male siblings play (which may have a negative impact on later engagement in income earning activities), and they may experience secondary infections from other household members which may be more intense than the primary infection because of their greater exposure (Basu and Basu 1991).

Successful childcare, whether women are employed outside the home or not, depends to a large extent on the quality of the time and the caregiving. The concept of positive deviance, as discussed by Zeitlin et al. (1987, 1990), is extremely relevant here because it stresses the importance of psychosocial factors in positive child health outcomes, especially in adverse environments where favor-

able outcomes would not be expected. Popkin and Doan (1991:689) state that "actions such as touch have a direct effect on biochemical processes involved in growth." Personal qualities of caregivers, which have been ignored in child health studies, are also important variables. A drawback in studying the psychological and emotional factors which promote positive deviance is that they are not well understood with economic models and they are often non-quantifiable, thus necessitating more qualitative ethnographic research. I have no doubt that the more scientifically minded will attempt to quantify such variables as "smiling happy mood between mother and child" (Zeitlin et al. 1987:103).

Other resources which are important in the household production of health, and which may be allocated differentially, are cash, food, health treatments, and knowledge. Although women's work has been considered as having a negative impact on child health in terms of time spent outside of the home, the *potential* for women to compensate for this with an increase in these aforementioned resources has been suggested (Popkin and Doan 1991).

It has been assumed that the employment of women will increase household income, and hence improve health status, presuming that adequate substitute childcare has been provided (Basu and Basu 1991). This supposition fails to consider the circumstances under which women seek wage labor and what happens to the cash once it enters the household. Often, women may have to work because of spouses who lost their jobs or because of partners who left them. In these situations there may not be an overall increase in household income, but perhaps a decrease.

Where women's earnings do represent a relative increase in family income, some studies have shown that women's money goes more directly to child and family health and well-being, providing that women are able to maintain some control over their cash (Popkin and Doan 1991). The postulation that women will spend their cash improving child health must be accepted cautiously though because it is based on the ideology of the altruistic mother, which may be more myth than reality.

The unequal distribution of food within the household along gender lines has been noted by various studies, as described by Chen et al. (1981). The sex bias against females concerning resources such as food and health care has serious repercussions for

morbidity and mortality. Such discrimination may be the immediate result of maternal neglect of females but it ultimately stems from patriarchal ideologies which devalue the roles of women.

While Basu and Basu (1991) describe an increase in mortality for children of working mothers, they also point out that such mortality is not gender biased, indicating that working women may not be exhibiting benign neglect towards females (or they may be too busy to bother with effective discrimination behaviors). This indicates that under some conditions the employment of women may result in more egalitarian distribution of resources such as food and health treatments. Quality of food must also be considered when assessing health outcomes because working mothers may be substituting inferior quality purchased foods for more nutritious indigenously produced food.

The last resource I will discuss in this paper is knowledge, which is often a base for unequal power relations. As Hoodfar (1988:141) stresses, "financial information was the key to whether there was frequent strife" in the marriage. Many women in Hoodfar's study in Egypt had no idea how much their husbands made or spent, as men often kept significant portions of their money for their own separate economies to subsidize leisure and fun. This control of knowledge and cash by men places women in a disadvantaged position when trying to successfully negotiate survival strategies.

Another perspective on knowledge is that taken by Basu and Basu (1991), who speculate that employed women will have increased access to knowledge on such matters as health and child rearing, and this, coupled with the purported increased confidence women attain in the workplace, will result in knowledge being translated into behavior.. There is an implicit assumption in such reasoning that knowledge "out there" is beneficial to health status—what if women are learning detrimental health practices in their exposure to work related knowledge, such as western junk food diets and early infant bottle feeding? Similar assumptions are made in the literature on female education and health status—if women only were educated they would adopt "appropriate" health promoting technologies. Such a naive assessment of knowledge as a social fix fails to consider that formal education and cultural knowledge are laden with ideologies which perpetuate gender inequalities in the household.

Conclusions

Some policy suggestions which have emerged from the literature reviewed in this paper are: 1) to improve the efficiency of household production through technology so women will not experience as much conflict in their allocation of time; 2) to improve women's health and nutrition directly as a means to improve overall household health; 3) to create female solidarity groups to enhance women's self-esteem and bargaining power in the household and the larger society; and 4) to isolate the variables which link women's employment to decreased health status and provide women with jobs that minimized these variables. Interestingly, most policy suggestions involve changing the behavior or practices of women—little mention is made of men, which could be construed as implicit acceptance of men's monopoly on power and resources in the household and society. Perhaps more interventions should follow the example provided by Nsamenang (1987) concerning Father Involvement Training (FIT) in Cameroon to "sensitize" fathers to be better caretakers of their children.

Other important topics which are often ignored in the literature on the household production of health are the impact of the domestic cycle, household composition, age of members on health, and the processes and dynamics of the household production of health in female-headed households.

This brief examination of the interrelations between women's work and the household production of health indicates the complexities of the mechanisms which are involved. Researchers often make sweeping statements about women's productive activities and health, which are premature considering the formative stage of household health studies. Much more detailed investigation is needed to document the many types of work that women engage in and the health repercussions for females and other household members.

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