

Effects of Social Support on the Mental Health of the Physically Disabled in a Chinese Context

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Abstract

The health protective function of social support has been well established in western studies, but systematic research in the field is so far scarce in Mainland China, especially on the disabled population. The purpose of this study was to investigate the effect of social support on the mental health of the physically disabled in a major city of south China, Guangzhou.

Four research questions were raised in the present study: Do all kinds of social support have beneficial effect on the mental health of the physically disabled? Are different types of social support equally effective in affecting the mental health of the physically disabled in Mainland China? How does each kind of social support operate to influence their mental health? Do other moderator variables affect the link between social support and mental health? To clarify the relative effectiveness of received and perceived social support, as well as the instrumental and emotional support, on mental health, and to interpret the mechanism by which social support operate in the Chinese context through revealing the effect of moderator variables, constitute the two major objectives of this research.

Following the quantitative paradigm in methodology, a cross-sectional survey was conducted in Guangzhou with a random sample of 204 cases. Hierarchical regression analyses were used to test the research hypotheses that provide answers to above research questions.

The major research findings showed that, firstly, perceived social support was found to be most effective in maintaining mental health of the physically disabled, and the

strongest predictive power was not intervened or attenuated by received social support. Secondly, not all kinds of social support had beneficial effect on the mental health of the physically disabled. More received daily care support was found to be associated with severer depressive symptoms, possibly because of the negative interactions with supporters concomitant with support transactions, or the sense of indebtedness for violating the norm of reciprocity in such exchange relationships. The amount of received economic and emotional support, however, seemed non-relevant to the mental health of the physically disabled. Thirdly, effects of received social support depended not only on the quantity of support received, but also on the complex combination of characteristics involved in the support, supporters, support recipients, and support relationships. Although displaying no significant effect on mental health according to support amount only, the satisfaction with received economic support and personal agency in seeking such support predicted less depressive symptoms. Similarly, better attitude of supporters, higher degree of reciprocity in the support relationships and more personal agency in the domain of daily care support also predicted better mental health status. Finally, the relative effectiveness of received instrumental and emotional support on the mental health of the physically disabled remained unclear in the current study. Neither instrumental nor emotional support presented significant correlation with depression.

Given the findings specifying the particular operation of social support within the Chinese context, their implications for policy and practice are discussed further in the thesis, so are suggestions for future research in the field.

論文摘要

社會支持對健康的保護性功能在西方文獻中已建樹頗豐，但迄今為止，中國大陸對此領域的研究，尤其是針對殘疾人群體的研究尚甚為缺乏。而本研究的目的正是為彌補此一不足，以對中國南部大城市廣州的調研結果為基礎，探討社會支持在中國的社會文化背景之下，對肢殘人士精神健康的效用。

本研究所提出的研究問題包括：是否所有類型的社會支持均有益於肢殘人士的精神健康？不同類型的社會支持在影響肢殘人士的精神健康時是否具有同等效用？每一類型的社會支持如何影響精神健康？是否存在其他變量影響社會支持與精神健康的關係？區辨獲得的社會支持與感知的社會支持及工具性支持與情感性支持對肢殘人士精神健康的相對效用，量度其他相關變量的影響以闡釋社會支持在中國社會文化背景下的運作機制，是本研究的主要目標。

方法而言，本研究選取量性研究範式，通過橫切面問卷調查收集資料，樣本由隨機抽取的 204 名居住于廣州市的肢殘人士組成。資料分析採用多元線性譜系回歸模型，切合研究問題，檢驗相關假設。

本研究的主要結論顯示，第一，在各種類型的社會支持中，感知的社會支持對維繫肢殘人士的精神健康效用最強，而且其效用獨立於獲得的社會支持的影響。第二，並非所有類型的社會支持均有益於肢殘人士的精神健康。研究發現，獲得越多的生活照顧支持伴隨著越嚴重的抑鬱症狀，而獲得的經濟支持和情感支持與肢殘人士的精神健康不存在顯著相關。社會支持在部分領域的消極

作用可能源於與支持相伴隨的與支持者的消極互動，以及被支持者在此不平衡的交換關係中因違背基本的互惠性原則而產生的負債感。第三，獲得的社會支持之于精神健康的效用不僅依賴於所獲支持的數量，而且依賴于支持，支持者，被支持者以及支持關係的綜合特徵。儘管所獲經濟支持的數量與精神健康沒有顯著相關，但肢殘人士對所獲經濟支持的滿意度及其在尋求經濟支持上所表現的主觀能動性卻能預測較少的抑鬱症狀。類似的，提供生活照顧的支持者態度，支持關係的互惠性程度以及尋求生活照顧支持的主觀能動性亦與肢殘人士的精神健康顯著相關。最後，本研究未能區辯獲得的工具性支持與情感性支持對肢殘人士精神健康的效用孰輕孰重。兩類支持均未表現出與精神健康的顯著相關。

基于上述研究結果所標示的社會支持在中國社會文化背景下的功能運作，本論文亦進一步探討了其對政策與實務的借鑒意義，及對該領域進一步研究的啟發。

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Chapter 1 Introduction

The health-related function of social support has been demonstrated by a number of studies conducted on a wide range of populations (Allen et al., 2000; Acitelli & Antonucci, 1994; Cheung & Kwok, 1999; Chi & Zhou, 2001; Cohen & Wills, 1984; Gupta & Korte, 1994; Heller & Swindle, 1983; Kutner, 1987; Leung, Wong, & Siu, 1991; Ma, 1992; Lin, 1999; Mitchel, Bellings, & Moos, 1982; Newsom & Schulz, 1996; Rook, 1983; Thoits, 1995; Turner & Samuel, 1988; Wethington & Kessler, 1986), among which people living with disability conditions constitute one domain of great interest. It has been consistently reported that social support is significantly correlated with mental health (usually mentioned interchangeably with psychological well-being and operationalized as psychological distress or depression) of the chronically disabled (Allen, 2000; Kutner, 1987; Turner & Samuel, 1988), mostly serves a health promoting function. However, there are few systematic studies examining the relationship between social support and mental health of the disabled people in Mainland China, even lacking is the interpretation of how social support operates among the disabled population and within the Chinese context.

Following the World Health Organization, disability refers to any restriction or lack (resulting from impairment) of ability to perform an activity in the manner within the range considered normal for a human being (WHO, 1999). According to Law of the People's Republic of China on the Protection of Disabled Persons 1990, a disabled person is defined as a person who suffers from abnormalities or loss of a certain organ or function, psychologically or physiologically, or in anatomical structure and has lost wholly or in part the ability to perform an activity in the way considered

normal. The term “disabled persons” refers to those with visual, hearing, speech or physical disabilities, intellectual disability, mental disorder, multiple disabilities and/or other disabilities. Among such a wide range, people with physical disability are often of great research interest, and will fall into consideration of the current study.

Indeed, many research results have revealed a significant relationship between physical disability and psychological well-being (Bruce, Seeman, Merrill, & Blazer, 1994; Elliott & Shewchuk, 1995; Faucett, 1994; Fifield, Reisine, Sheehan, & McQuillan, 1996; Idemudia & Madu, 2000; Williamson & Schulz, 1995; Wolfe & Hawley, 1993; Wright et al., 1996). It is often demonstrated that the disabled are at dramatically elevated risk for depressive symptoms, and that this high level of depression characterizes both men and women of all ages (Turner & Samuel, 1988; Tracey et al., 1991). The symptoms, especially pain, which may accompany a physically disabling illness, are strong and significant predictors of negative mood and psychological distress (Bruce, Seeman, Merrill, & Blazer, 1994; Faucett, 1994; Fifield, Reisine, Sheehan, & McQuillan, 1996; Williamson & Schulz, 1995; Wolfe & Hawley, 1993; Wright et al., 1996). Depressed mood, in turn, may pose additional obstacles to a person’s ability to function effectively in daily life. A newly proposed “activity restriction model” specifies that restriction of routine activities by a major life stressor is a powerful intervening variable that plays a central role in psychological adjustment (Williamson & Shaffer, 2000), and disability is no doubt inducing such a restriction. In coping with such a chronic strain, it has also been repeatedly proved that “social ties to others, and the support that these ties can potentially provide, have particular significance for people living with a disabling physical condition” (Wortman & Conway, 1985). Individuals who receive social

support consistently cope better with events such as physical disability (Kemp & Wash, 1971; Schulz & Decker, 1983), for informal support systems can help people cope with the psychological difficulties of adapting to disability, and disabled people may require assistance to carry out everyday living tasks (Wortman & Conway, 1985). Social support networks, particularly familial networks, often ease adjustment to chronic illnesses (Bloom, 1982; Bloom & Spiegel, 1984; Friedman et al., 1988; Northouse, 1981; Vachon, 1986) and encourage health-promoting activities and lifestyles (Levy, 1983; Spiegel, Bloom, & Yalom, 1981). Despite the extensive research validating the benefits of social support for a variety of health outcomes, however, the mechanisms by which social support operate remain open to debate and study (Broadhead & Kaplan, 1991; House et al., 1988).

According to 1987's national survey, there are a total of 51,460,000 disabled people living in Mainland China, approximately five percent of the total population. Upon this estimation, one out of twenty persons are disabled, and at least one of every five families will have a disabled person. The kinsfolk in direct relation to the disabled persons amount to about two hundred million. Calculated from the survey result in accordance with the change in total population reported by the fifth national census of Mainland China, currently the total number of disabled people has surpassed the line of sixty million, wherein the physically disabled are about 8.77 million (CDPF, 2003). Among so large a population, those who age between 15 and 59 take the most portion of about 44.45 percent, 29.59 percent of whom have completely lost the ability to enter labor force, and nearly 70 percent of whom have to depend on others to sustain life. In view of their marital status, the rate of having spouse (66.37%) is significantly lower than their able-bodied counterpart (91.80%), whereas the rate of bereavement (32.17%) or divorce (1.46%) is considerably higher in comparison with

7.6% and 0.55% (Xi, 1993). Indeed, because of their physical, intellectual or mental deficits, they are always excluded from the social mainstream and faced with special difficulty in study, work, communication and marriage so as to suffer more from both physical and mental health problems. Moreover, given that they can hardly be employed for their functional limitations, informal social support appears to be particularly significant for them as a basic net of security because they have no access to resources provided by *danwei*, the unit which plays a most critical role in Mainland China for the general populations who keep a formal job, to get any kind of social security and social welfare.

However, systematic research on the vulnerable population is so far scarce in Mainland China. Even lacking is the concern about their mental health, or psychological well-being, a domain appealing to more and more attention by studies on the general population and the elderly. The role of social support in fulfilling a health-related function, which has been well established by western research, is also not yet tested among the population in the Chinese context. As a result, neither policy nor service intervention can find a basis for reference to evaluate their adequacy or efficacy. The well-being of the disabled population is also hardly to be sufficiently regarded or effectively enhanced.

The present study aims to advance our understanding of the relationship between social support and mental health among adults with physical disability aged between 18 and 59. Focusing on the age range is derived from such an assumption that adults with disability may be more susceptible to depressed symptoms for violating the age-related norms holding that people in midlife ought to be self-sufficient and not rely on others (Rook, 1987; Hirdes & Strain, 1995). In consideration of the Chinese

context, people aged above 18 are expected to have the responsibility and capability to sustain their own living, meanwhile not yet entering the period of elderly support if below 60 years old, the age traditionally set for retirement. The age restriction will avoid entangling the issue under concern with other problems like elderly support.

There are four major research questions to be answered in my study: Do all kinds of social support have beneficial effect on the mental health of the physically disabled? Are different types of social support equally effective in affecting the mental health of the physically disabled in Mainland China? How does each kind of social support operate to influence their mental health? Do other moderator variables affect the link between social support and mental health? With answers to these questions, the study expects to achieve two major objectives: to clarify the effectiveness of particular types of social support on the mental health of the physically disabled, and to interpret the mechanisms by which social support operates in the Chinese context.

In brief, the study is expected to contribute to knowledge development through providing evidence of the effect of social support on the disabled population in Mainland China and through relating the empirical phenomena to theoretical and cultural explanations, which makes a base of comparison for cross-culture research in the field. On the other hand, it will have implications for policy and practice through distinguishing and clarifying the function of social support, so as to facilitate more effective policy implementation and service delivery.

Chapter 2 Literature Review

A survey of the literature pertaining to social support could find fairly strong evidence for the health benefits of social support on individual health and well-being (e.g. Acitelli & Antonucci, 1994; Cutrona & Suhr, 1994; Heller & Swindle, 1983; Joseph, Williams, & Yule, 1992; Mitchel, Billings & Moos, 1982; Rook, 1983; Slack & Vaux, 1988; Vaux, 1988). To display their findings and implications, a brief review follows to outline the major issues concerned and theories employed by previous research to explain the complex phenomenon. Their relevance to the present study will be especially highlighted.

2.1 Review of Major Concept: Social Support

2.1.1 Conceptualization of Social Support

There has been a dramatic increase of interest in the concept of social support as it affects health and well-being since the 1970s. But the concept is truly a meta-construct (Vaux, Phillips, Holly, Thompson, & Stewart, 1986; Berrera, 1986), which connotes multiple dimensions and varies across research and researcher (Brown et al., 1975; Cassel, 1976; Caplan, 1974; Caplan and Killilea, 1976; Henderson, 1977, 1980; Henderson et al., 1978; Lowenthal and Haven, 1968; Lynch, 1977; Myers et al., 1975; Mueller, 1980; Miller and Ingham, 1976; Nuckolls et al., 1972; Weiss, 1973). For the sake of parsimony, the diversified definitions can be assigned to two streams led by Cassel (1976) and Cobb (1976), whose papers are often cited as seminal to the field. From an objective standpoint, Cassel (1976) referred to social support as kind of “meaningful social contact”, and focused on both the protective effect of social support as a stress buffer and the mediating role of physiological processes in bringing this about. In contrast, Cobb (1976) approached

the topic from a different perspective that described support as information provided to the recipient that makes the person believe he or she is cared for and loved (emotional support), is esteemed and valued (esteem support), and belongs to a network of communication and mutual obligation in which others can be counted on for assistance (network support). Seen from the subjective interpretation, health and well-being are dependent on what the person sees and believes, be it accurate or not.

Following these two traditions, social support can be seen as attachments among individuals or between an individual and a group that serve to 1) promote emotional mastery, 2) offer guidance, and 3) provide feedback about one's identity and performance (Caplan, 1974; Caplan and Killilea, 1976). It can also be defined as the resources provided by other persons according to social resource theory (Cohen & Syme, 1985; Johnson & Sarason, 1979; Kahn & Antonucci, 1980; Pearlin et al., 1981), in which it is operationalized as "access to and use of individuals, groups, or organizations in dealing with life's vicissitudes" (Pearlin et al., 1981), or "the degree to which individuals have access to social resources, in the form of relationships, on which they can rely" (Johnson & Sarason, 1979). With the concern of support sources, social support can be defined as Cantor (1979) proposed, "including those informal and formal functions and services which enable a person to remain independent in the community" that "span the range from assistance provided through social policy and services rendered by bureaucratic organizations to more personal help received from family, friends, and neighbors". Further, House (1981) suggested that social support be understood in the context of "Who gives what to whom regarding which problems". The forms of social support are elaborated in terms of a source-by-context matrix, in which sources of support include spouse partner, other relatives, friends, neighbors, work supervisor, co-workers, service or

care giver, self-help group, and health/welfare professional, while content of supportive acts includes emotional, appraisal, informational, and instrumental support.

Although the complexity in conceptualizing, it is necessary to be clearly defined when research is designed to investigate specific conceptions that are theoretically linked to the processes under consideration. As far as my study is concerned, I prefer to adopt the synthetic definition provided by Lin (1986: 18) as an integration of previous work, “social support is the perceived or actual instrumental and/or expressive provisions supplied by the community, social networks, and confiding partners”. Information about types and sources of social support is embodied in the broad definition that matches the design of my research. Further operationalization and measurement issues will be discussed in the elaboration of research design.

2.1.2. Typology of Social Support

Supplementary to the definition, considerable attention in the social support literature has been given to classify various types of social support. Investigating the impact of different kinds of support is in its progress to achieve more specified knowledge about their respective functioning. In review of early works, Dean and Lin (1977) differentiated instrumental and expressive support, whereas Pinneau (1975) and Schaefer et al. (1981) distinguished tangible, appraisal (information), and emotional support. Byrant and Weinert (1981) operationalized Weiss’s (1974) five functions of support—indication of personal value, group membership, provision for attachment and intimacy, opportunity for nurturance, and availability of help (informational, emotional and material). Caplan (1979) further differentiated two dimensions: the objective versus subjective, and the tangible versus the psychological. Gottlieb (1978)

classified social support using four categories: emotionally sustaining behaviors, problem-solving behaviors, indirect personal influence, and environmental action, and suggested that social support entails three constructs: social integration/participation, interactions on social networks, and access to resources in intimate peer relationships, while Cronenwett (1983) tried to operationalize House's (1981) conceptualization of four types of support—emotional, instrumental, informational, and appraisal. Until recent years even, the effort to develop typologies is still of interest to many researchers (Caruso, 1992; Dakof & Taylor, 1990; Vaux, Riedel, & Stewart, 1987). Notwithstanding their diversity, most of these typologies do have two elements in common, instrumental support (i.e., behaviors that provide assistance in task-directed coping efforts) and emotional support (i.e., behaviors that communicate that an individual is cared for and loved)(Duck et al., 2001). These are also adopted as my classification of social support. Further illustration of these two constructs will appear later in reviews of the link between social support and mental health.

2.1.3. Measurement of Social Support

A variety of approaches to the estimation of social support, which have proved useful in predicting health outcomes, appear to fall into three distinguishable categories: the social-integration approach, social-network analysis, and the social-psychological or perceptual approach (Turner, 1983).

The Social-Integration Approach assesses support in terms of the individual's connections with others, including primary and secondary relationships and both formal and informal group associations. It operates upon such an assumption that some quantity of some type of support is accessible from the connections specified.

Such social connections are crucial because the “minimum condition for experiencing social support is to have one or more stable relationships with others” (House, 1981). Social-Network Analysis attempts a more complex and comprehensive analysis of social environments. Defined by Walker et al. (1977), an individual’s social network represents “that set of personal contacts through which the individual maintains his social identity and receives emotional support, material aid and services, information and new social contacts”. They identified five network characteristics most relevant to personal support: size (the number of persons with whom the individual maintains social contact), strength of ties (intimacy as well as time and intensity involved in the tie), density (connectedness in terms of the extent to which network members know and contact one another independently of the individual), homogeneity of membership (the social and demographic similarity of network members), and dispersion of membership (the ease with which network members can get together). Setting aside the practical difficulties, the use of social-network analysis as assessment of social support can provide the most complete and unconfounded examination (Gottlieb, 1981) but fail to address a central and crucial aspect of social connectedness--the extent to which the individual experiences the support of others. Social-Psychological Approach just attempts to index the individual’s experience of being supported, and assessing the presence or availability of a confiding relationship is one prominent procedure (Andrews et al., 1978; Dean et al., 1980; B.H. Kaplan, 1975; Lin et al., 1981; Miller & Ingham, 1976). Many researchers who viewed social support as a multidimensional concept have included perceived support as a significant element (e.g., Dean et al., 1981; Lin et al., 1981; Husaini et al., 1982; Aneshensel & Frerichs, 1982). In line with this orientation, there are also a number of scales designed for specific purposes and applied under particular circumstances, such as the Interview Schedule for Social Interaction (ISSI),

allowing for the joint estimate of both the actual conditions of social environment and their adequacy as judged or perceived by the individual.

On another ground, social support can also be examined from structural or functional dimensions, in accordance with how they are conceptualized. Structural measures are generally considered to measure objective characteristics of social networks. They describe the existence of and interconnection between social ties. Functional measures generally ask persons about their perceptions of the availability or adequacy of resources provided by other persons and assess whether interpersonal relationships serve particular functions. Following through the same thread, Lin (1990) applied the structural-functional dichotomy as measures of social support in a community survey. He identified three layers in the structural part, social integration, social network and intimate social ties, and proposed three dimensions in the functional part, received vs. perceived, instrumental vs. emotional, and routine vs. crisis social support. The measurement proved meaningful for the study.

Similar to the conceptualization and typology, the decision of measurement is particularly pertaining to the research design. The appropriateness of measurement techniques depends on matching the measurement instruments to the questions being posed. In my study, the measurement of social support will follow a synthetic way that incorporates the options mentioned above, embodying both concerns of structure and function, and incorporating items of integration, network, and psychological aspects.

2.1.4. The Link between Social Support and Mental Health: Three Debates in Literature

It has long been convinced that social support is closely related to physical as well as mental health. A survey of the literature can easily find a tremendous amount of work attempting to establish the positive link (Allen et al., 2000; Cohen & Wills, 1984; Wallston, Whitcher-Alagna, DeVellis, & DeVellis, 1983; Gupta & Korte, 1994; Heller & Swindle, 1983; Lin, 1999; Mitchel, Bellings, & Moos, 1982; Rook, 1983; Thoits, 1995; Wethington & Kessler, 1986). In revealing and interpreting the effect of social support on health outcomes, there remain three ongoing debates in literature that constantly attract the attention of research in the field.

Firstly, whether the association between social support and mental health follows the main effect model or the buffering hypothesis. A typical model in support research proposed that social support operates in mediating the negative effects of stress on people's health status, both in physical and psychological terms (Broadhead et al., 1983; Cassel, 1976; Cobb, 1976; House, 1981; Kahn, 1981). The main effect hypothesis argues that support enhances health and well-being irrespective of the level of stress (Andrews et al., 1978; Aneshensel & Frerich, 1982; Bell et al., 1982; Dean & Ensel, 1982; Husaini et al., 1982; Schaefer et al., 1981; Williams et al., 1981), while the more favored buffering hypothesis maintains that support exerts its beneficial effects only in the presence of stress by protecting people from the pathogenic effects of such stress (Brown et al., 1975; Cassel, 1976; Cobb, 1976; De Araujo et al., 1973; Dean & Lin, 1977; Nuckolls et al., 1972). The focus of their disparity is on whether only in moderating the effects of unexpected crises can the effect of social support be identified. Substantial evidence in both directions makes it impossible to reach consensus at the present time. However, the debate between these two models deserves less discussion for the disabled population, for the fact of being disabled can be viewed either as part of their routine daily life or as

ever-emerging chronic strains. Evidence of both main-effect and buffering hypothesis would add proof to the support-health association. In my position, what really counts is to examine how social support relates to psychological symptoms and how these associations can be explained.

Secondly, which of perceived and received social support is more effective in affecting health status. It has been convincingly demonstrated that perceived and actually received social support are empirically distinct in studies where both concepts have been examined (Dunkel-Schetter, 1984; Dunkel-Schetter & Bennett, 1990; Dunkel-Schetter et al., 1987; McCormick et al., 1987; Newcomb, 1990). Some argue that perceived support can exist without received support and may be more influential than received support in facilitating adjustment to stressful life events (Turner et al., 1983; Wethington & Kessler, 1986) and in predicting health outcomes (House & Kahn, 1985). The perception that others are willing to help could result in increased overall positive affect and in elevated senses of self-esteem, stability, and control over the environment. It is the perceived reliability of networks rather than any current exchanges that provides a supportive function (Garber & Seligman, 1980). Feedback and direction from others may also aid in the avoidance of life stressors that would otherwise increase the risk of both psychological and physical disorders. Perceived social support is also supposed to affect the appraisal of the current balance between environmental demands and available resources, thus mediating one's anxiety about stressful situations (Coyne & Lazarus, 1980; Cohen & McKay, 1984).

Disabled individuals, however, maybe constitute a population for whom received support takes more significant roles. According to Kutner (1987), received social

support appeared to be more important for those with chronic disabling health conditions. In addition, effects of received social support might depend on a complex interaction among the source of support, the type of support offered, and the event (Gottlieb, 1984; Wortman & Conway, 1985; Wethington & Kessler, 1986). Still others take timing into consideration (Schwarzer & Leppin, 1991) and pointed out perceived support may be most important under normal circumstances where people can usually cope on their own or have to rely on others only to a limited degree, while received social support may be more effective in situations where support actually has to be mobilized. On account of its importance in facilitating a full understanding of social support operation, the effort to compare and interpret the effect of received and perceived social support will be kept as an aim in my research.

Thirdly, what is the relative importance of instrumental versus emotional social support in affecting the health outcomes. Instrumental support typically refers to actual transactions that occur between the care provider and care recipient, including a wide range of activities (Thoits, 1991; Thomas, Ashby & Wills, 1985). Theoretically, the relationship between instrumental support and well-being is straightforward: It could be related to well-being because it reduces task load or provides increased time for leisure activities in general populations (Paykel, Emms, Fletcher, & Rassaby, 1980; Schaefer et al., 1981), while meets the instrumental needs that are unable to be performed by certain populations under certain situations (Allen et al., 2000). In contrast, a great many researches revealed the health-related functions of emotional support. Having someone to confide in about personal issues or someone available with whom one can talk about problems (e.g., a confidant) is usually used as the most common operationalization of emotional support (Thoits, 1995). The maintenance of a stable intimate relationship is closely associated with

good mental health and high morale (Lowenthal and Haven, 1968; Gupta & Korte, 1994; Smith et al., 1986). The experience of feeling accepted and valued by another person, or the easement of distress associated with alterations in lifestyle and self-image that accompany disability by offering self-validation and reassurance explains why this support enhances psychological well-being (Morgan, 1989).

Nevertheless, the conclusion about which kind of support is more effective depends on the population it serves, or the situation it operates (Bloom et al., 1991; Roca, Wigley, & White, 1996; Schaefer, Coyne, and Lazarus, 1981; Seeman, 1984). Different types of support are most likely to be discriminable and to have different effects as the nature of the problem requiring support varies. For example, Schaefer, Coyne, and Lazarus (1981) found that instrumental support was more important than either informational or emotional support in predicting depression in older persons. Seeman (1984) similarly found that greater instrumental support from family and friends, but not emotional support, was associated with less coronary artery disease. On the other hand, studies of support functions that protect college students from the potentially pathogenic effects of stressful life events find that informational and emotional support are effective buffers instead of instrumental support (Cohen, Mermelstein, Kamarck & Hoberman, 1985). Satisfying emotional support makes a more marked impact than instrumental support among scleroderma outpatients (Roca, Wigley, & White, 1996) and long-term cancer survivors (Bloom et al., 1991), too.

Moreover, the most effective form of support may depend on the situation-specific needs that arise (Cohen & McKay, 1984; Cohen & Wills, 1985; Cutrona, 1990). Drawing on Weiss' (1976) distinctions among the different phases of stress which determine the needs that arise and which kind of support will best meet those needs,

Jacobson (1986) suggested that emotional support is most helpful at the initial crisis phase when a threat is just recognized, because it provides one with reassurance that others are available for help. If the crisis persists and moves into the transition phase characterized by confusion, information support may best meet the needs for it aid one in understanding the meaning of and the changes of required by the situation. When it comes to the deficit phase, “a situation in which an individual’s life is defined by chronically excessive demands” (Jacobson, 1986: 254), it should be the provision of instrumental support that best restore one’s normal living. In brief, the most striking point underlying this stress-support specificity model is that, support function must match need, which provides a promising avenue to our understanding the effect of social support.

With regard to people with physical disabilities, however, as Allen et al. (2000) indicates, they are likely to “need both emotional and instrumental support, given the concomitant ongoing need for practical assistance and the increased risk of social isolation that prevents the formation of social ties”. Yet according to Jacobson’s (1986) distinction, they should be defined as in the deficit state wherein instrumental support may best restore their lives burdened with chronically excessive demands. On earth which kind of support is more effective in maintaining better mental health of the physically disabled? To assess the relative contribution of various functional supports to the mental health of the physically disabled in Mainland China, measurement of multiple independent support functions were planed to be used in my study, which is bound to shed light on the mechanisms linking social support to mental health among the particular population.

No matter how these three debates compete with each other about the relative

effectiveness of different types of social support and different mechanisms by which social support operate, they all assume a beneficial effect of social support on mental health outcomes. Yet recent research in the field has also begun to recognize the negative aspects of social support. A number of studies have suggested that not all support is necessarily beneficial, for the same individuals who provide support may also be a source of conflicted interactions that bring about tension and stress, or called “social strain” (Coyne & DeLongis, 1986; Lunsky & Benson, 2001). The negative aspects of social relationships have proven to be more robust predictors of psychological well-being than positive aspects, especially when matched with the negative affective domains of health outcome such as depression (Finch et al., 1989; Fiore, Becker, & Coppel, 1983; Lunsky & Benson, 2001; Manne & Zautra, 1989; Rook, 1984; Helgeson, 1993; Pagel, Erdly, & Becker, 1987; Schuster, Kessler, & Aseltine, 1990; Shinn, Lehmann, & Wong, 1984), and the finding has been testified exactly on the disabled population (Lunsky & Benson, 2001). Possibly it is the relative infrequency and unexpectedness of the negative social interactions’ occurring that make the experience more vivid and consequential. Moreover, the negative effect of problematic social interactions may counteract the positive effect of supportive interactions (Helgeson, 1993). Social support is hereby demonstrated to be a double-edged sword in affecting psychological well-being (Tracey et al., 1991). This motivates us to look more wholly into the complex link between social support and mental health.

2.2 Review of Relevant Theories

2.2.1 Social Network

Social network is defined as “that set of personal contacts through which the individual maintains his social identity and receive emotional support, material aid

and services, information and new social contacts” (Walker et al., 1977), or more concisely as “a set of nodes that are tied by one or more specific types of relations between them” (see Cohen & Syme, 1985). The ties are defined by the flow of resources from one node (or network member) to another, while the resources can vary in quality, quantity, multiplexity, and symmetry. Network analyses focus on the characteristics of the patterns of ties between actors in a social system rather than on the characteristics of individual actors themselves, underpinned by the belief that the patterns of ties in a network can affect the flow of supportive resources through these ties (Hirsch, 1979). Moreover, the structure of networks can affect the extent to which individuals have indirect access to the supportive resources to which their tie partners are connected. Whole network analysis and egocentric (or personal) network analysis make two mainstream approaches under the foregoing point, of which the latter one is especially relevant to the study of social support because it focuses on how the properties of networks affect the flow of resources to focal individuals.

As the network approach developed, social support investigators have increasingly turned to it to understand the nature of supportive ties and networks, most of which focused on the provision of supportive resources (Thoits, 1982). Wellman (1981) specified that network analysis should either be the central focus of the concept of social support or should serve as a substitute for that concept for the advantages that network analysis may have: to broaden the range of social relationships examined, to encourage attention to multiple aspects and effects of these relationships, and to provide a method for describing the structural pattern of ties and for analyzing the effects of different patterns (Wellman, 1981; d’Abbs, 1982; Wilcox, 1981). Mueller (1980) contends that the social network concept may provide the unifying framework within which diverse findings on the relationship of social factors to levels and types

of distress may be integrated. Network analysis suggests a promising lead for measures of social support that are consequential for health. Analyses using the network model treat social support as contingent resources flowing through ties and seek to identify the network characteristic that determine the flow of supportive resource--resources that either mediate the health effects of stressful life events and circumstances or provide direct health benefits. Early researchers like Israel (1982) identified a set of structural and interactional network characteristics including size or range, density, content, directedness or reciprocity, durability, intensity, frequency, dispersion, and homogeneity. A great many support researches incorporate diverse combinations of the foregoing network properties in their analyses (Fischer, 1982; Kaufman, 1990; Bryant & Rakowski, 1992; Allen, 1999), but achieved conflicting conclusions. For example, some argued that densely knit, tightly bounded networks are structurally efficient for conserving existing resources, while others indicated that more sparsely knit, loosely bounded networks are more efficient for accessing new and more varied resources. The only exception to these conflicts is network size, which is generally found to be positively associated with health and well-being (Burt, 1983, 1992; Froland et al., 1979; Gallo, 1982; Haines & Hulbert, 1992; Hirsch, 1981; Phillips, 1981; McKinlay, 1981; Mitchell & Trickett, 1980). A large network is a good indicator of adequate instrumental support, thus mediating negative mood among adults with chronic disabling conditions (Allen & Mor, 1997; Bazargan & Hamm-Baugh, 1995; Berg & Piner, 1990; Biegel, Magaziner, & Baum, 1991). The larger one's social network, the more instrumental support available, as helpers can share support tasks and reduce burden (Berg & Piner, 1990). Therefore network size is selected as the major indicator of received social support in my study. Other features like density, strength, homogeneity or dispersion, since their contradictory findings in relation to support or mental health, can hardly be employed as valid

indicators but useful in portraying the support systems of my target population. Reciprocity, another property of relationships that logically seems relevant to health (Gallo, 1982), will also be introduced to my study as a potential moderator variable. Detailed elaboration of this concept will be provided in the followed review of social exchange and social capital theory.

Worthy of notifying, because of the tight connection between social network and social support, social networks are frequently believed to function as support networks, so that the terms “social network” and “support network” are often used interchangeably in the literature. However, not all ties in social networks are necessarily supportive (Wellman, 1984; Hammer, 1981; Mitchell & Trickett, 1980). The distinction between support networks and social networks is more than semantic. Confining the focus to “social support network” will help avoid unwanted confounding, and this restriction will be made in my study. In the sense, social support network refers to a set of nodes composed by persons who provide any kinds of support for the focal person routinely or in special need. In spite of the narrowed definition, properties of such social support networks are mostly the same with general social networks.

2.2.2 Social Exchange

The social support process is more often considered as one kind of “social exchange” rather than as a one-way provision of assistance and care (Dowd & LaRossa, 1982; Kadushin, 1983; Lee & Ellithorpe, 1982; Lindblad-Goldberg & Dukes, 1985; Mutran & Reitzes, 1984; Nye, 1979; Pala Stoller, 1985; Shanas, 1979; Specht, 1986; Stack, 1974). Support involves costs as well as benefits to actors who engage in it (Uehara, 1990). From its origin of Homans (1961), social exchange

theory has persisted the principle of equity or distributive justice, specifying that the rewards gained by each participant should be proportional to his or her investments and costs. The rewards exchanged may range from simple economic goods or services, interpersonal rewards such as expression of liking, to more general social rewards such as status enhancement. As Mauss points out (1954), there are three layers of obligation involved in social exchange: to give, to receive, and to repay. It would be expected that the more rewards provided, the more supportive the relationship would be. Equity in exchanges (of any particular resources) would produce greater relationship satisfaction (Hatfield, Utne & Traupmann, 1979). Further, several formulations suggested that interpersonal exchanges of self-disclosure information increase as relationships develop (Altman & Taylor, 1973) or that the general exchange of social rewards determines the progression of a relationship (Levinger & Huesmann, 1980). Such theories were important for suggesting that shared interactions and exchanges within a relationship are supportive not only because more rewards are available, but also because the history of reciprocal exchanges makes individuals more confident that others would provide assistance in times of need.

However, there is one theoretical complication for social exchange formulations because another facet of exchange theory predicts that persons who receive aid may experience a state of indebtedness, which is perceived as aversive and can discourage further help seeking (see Greenberg, 1980). A support relationship lacking symmetric exchange of resources is not assumed to be health-beneficial. Dependence is likely to be costly to the dependent actor in the psychological sense (Lee, 1985). Nevertheless, some proposed a theoretical distinction between exchange relationships (such as everyday economic transaction) and communal relationships (such as marriage and

friendship) as a resolution to the complexity (Clark & Mills, 1979). Their research indicates that in communal relationships, interpersonal behavior is governed more by a felt desire to respond to the other's needs and less by exchange principles. Consistent with this position, other investigators (Braiker & Kelley, 1979; Huston & Burgess, 1979) have noted that as close relationships develop, members feel increasingly interdependent and perceive themselves more as a unit than as a set of exchanging parties. This perceived absence of exchange concerns is hypothesized to enhance the supportiveness of communal relationships because it encourages help seeking from the other person (see Clark, 1983).

Moreover, it is also posited that exchanges among kin may comply with a specific norm of reciprocity. Support among kin follows generalized rules of reciprocity where providers do not expect any immediate or in-kind return because they assume their relationship will continue (Sahlins, 1965). Family members will provide social support to one another despite disparities in the ability of each member to provide support at any particular point in time, for they share a past history and a potential future of support on which they may view reciprocity as a process that occurs over the entire life course where current support might reciprocate past support or anticipate future support (Antonucci, 1990; Rook, 1987). Norms of reciprocity in families are grounded in open-ended exchanges that need not involve equal, direct, or contemporaneous transactions (Curtis, 1986; Mutran & Reitzes, 1984). In addition, reciprocity among kin is generalized not only across the life course but also across the types of services exchanged (Allan, Susan, & Sandra, 1996). When parties engaging in the exchange relationships have clearly differential abilities to provide some kinds of support and services, they can maintain balance through exchanging different types of aid (Finch & Mason, 1993). The essential aspect of reciprocity

among kin is that each side perceive that the other is doing the best they can to maintain a balanced relationship within the constraints of their abilities (Alan, Susan, & Sandra, 1996).

2.2.3 Social Capital

The perspective of social capital is of increasing interest in social research during the past fifteen years with regard to its utility in understanding how social factors influence personal and collective behaviors, such as political participation, social mobility, and physical or mental health (Lin, 2001). But definition of this concept is still lack of consistency. One representative paradigm considers social capital to be based on social network and embedded resources. As Lin (2001) indicates, social capital is the “investment in social relations with expected returns in the marketplace”, and it can be operationally viewed as “the resources embedded in social networks accessed and used by actors for actions”. Flap (1991, 1994, 1999) also specifies three elements of social capital upon a network perspective: 1) the number of persons within one’s social network who “are prepared or obliged to help you when called upon to do so,” 2) the strength of the relationship indicating readiness to help, and 3) the resources of these persons. Social capital is resources provided by alters who have strong relationships with ego (Flap, 1994). For Wellman and Frank (2001), social capital consists of an individual’s personal network and her chances of accessing whatever is circulating there. “Personal community networks”, through which people obtain their needed help, supply “network capital”, the form of “social capital” that makes resources available through such supportive ties with friends, relatives, neighbors and workmates (Wellman & Frank, 2001). Personal community networks are flexible and efficient sources of social capital that are low in financial cost. They may strengthen bonds while providing needed resources

(Fischer, 1982; Wellman, 1999; Schweizer et al., 1998). They may also increase the yield of other forms of capital (Degenne & Forse, 1999).

As to where does network capital come from, people can rarely count on all their network members to leap in and provide needed help, nor is all help actively sought (Wellman, 1982; Pescosolido, 1992). The provision of network capital depends on the social characteristics of each network member (or alter) (Lin & Dumin, 1986) and the relational characteristics of each tie with a network member (Wellman & Wortley, 1990). The variation in network composition and structure might also affect the provision of social support through ties (Gottlieb & Selby, 1990; Hogan & Eggbeen, 1995; House, Landis & Umberson, 1988; Wellman, 1992; Wellman & Gulia, 1999). Analyses of network capital should reveal not only which kinds of people (an individual-level analysis) and relationships (a tie-level analysis) are apt to provide different kinds of support, but also the extent to which the social networks as a whole can be supportive (a network-level analysis). Network capital thus operates through many aspects of interpersonal life that make resource available in the light. Ego's social characteristics, network size, ego-alter similarity, reciprocity, network composition, network structure, and so on are all subject to the research purview.

In addition, social capital involves expectations and reciprocal obligations between individual, similar to what has been elaborated in the social exchange perspective. Return from social capital should be proportional to the investment in social relations (Lin, 2001). Yet reciprocity operates as a network process more than as a tie process from the multi-level perspective. The cross-level interaction effect of ego's general level of providing support attenuates the reciprocity effect considerably. Reciprocity transactions between ties and enforceable trust in networks are interrelated forms of

network capital that need not be employed concurrently (Portes & Sensenbrenner, 1993; Frank & Yasumoto, 1998). That is, where there is a commitment to a larger network, actors need not draw their network capital primarily in the form of tie-level reciprocity transactions. When the network owes support to ego, ego need not depend on ties with specific alters who owe reciprocity (Wellman & Frank, 2001).

From the network-based conceptualization and operationalization of social capital, social support is appropriate to be understood as one kind of social capital, for it reflects resources embedded in or mobilized from individuals' social networks for the sake of fulfilling their instrumental or emotional needs. The quantity and quality of such resources are contingent on the social characteristics of each network member (or alter), the relational characteristics of each tie with a network member, and the structural and compositional characteristics of the network as a whole. Moreover, the flow of such resources conforms to the norm of reciprocity, either at the tie or network level. Actually the concept of social capital has been applied as a new and more fashionable label for investigations in the social support field (Lynch et al., 2000). There are studies documenting the beneficial effect of social capital on individual health consequences as well as the health of communities (Campbell, Wood, & Kelly, 1999; Cooper et al., 1999; Daly, 1997; Kawachi et al., 1997; Kawachi, Kennedy, & Glass, 1999; Kennedy, Kawachi, & Prothrow-Stith, 1996; Kennedy, Kawachi, & Brainerd, 1998; Kreuter, Lezin, & Baker, 1998). Nevertheless, it should be noted that the term 'social capital' is more generally used in most of these studies as features of a community or society which promote cohesion and a sense of 'belongings', and which enable its members to cooperate for the benefit of all (Cooper et al., 1999), according to Putnam's (1995) definition of social capital, 'features of social organization such as networks, norms, and social trust that

facilitate coordination and collaboration for mutual benefit' (p. 67). In the sense the concept of social capital includes the following types of resources available to a community or locality, 1) social resources, such as formal and informal support networks; 2) collective resources, including social trust; 3) economic resources, such as levels of unemployment; and 4) cultural resources, such as educational facilities (Cooper et al., 1999). It is the integrative stocks of social capital at both network and community levels, in which network capital accounts for only one proportion, that can exert a considerable influence over individuals' health experience.

Nevertheless, it is appropriate to understand social capital from a network perspective in the Chinese context as proposed in the current study, for *Guanxi* (relations) as well as *Lunli* (obligations) intrinsic in the relational networks makes the very basis of Chinese societies for many social factors to serve their functions. With a preliminary test in an empirical study in Taiwan, which included measures for network resources, civic engagement and trust, Lin's (2001) analysis also lends strong confirmation to the view that embedded resources in social networks, or social resources, is the core indicator of social capital. Therefore the proper theoretical development for social capital must always be cognizant of the centrality of embedded resources in social networks and retain a meso-level analytic orientation-the juncture between individuals and their relationships. The network-based social capital perspective is expected to provide a promising avenue toward more adequate understanding of the operation of social support on the health outcomes among the Chinese population.

2.3 Review of Empirical Studies on Social Support and Mental Health

There is fairly strong evidence for an association between social support and mental

health (Kessler & McLeod, 1985, a review) in empirical studies, of which the disability-targeted ones are entering my prior discussion. They have great implications for my study with regard to design, measurement, and interpretation.

A community study conducted by Allen and her colleagues (2000) on people with disability residing in a medium-size city in western Massachusetts provides the most implications for the current study, especially in the design of framework. It seeks to determine which aspects of social support are most effective in mediating mood state among working-age and elderly adults with disability. Mood state was employed as the dependent variable, measured by a widely used five-item Mental Health Index (MHI-5) (Ware & Sherbourne, 1992), while social support, age, disability and morbidity were employed as the independent variables. Social support was tested by a variety of indicators, with three for instrumental support (network size, advisor support, & confidence in the reliability of support systems), two for emotional support (presence of a confidant & marital status), and one for integration into community. Multiple regression analysis was used to model mental health on multiple aspects of social support while holding socio-demographic and disability indicators constant. Analyses revealed that network size and confidence in the reliability of helping networks are significantly and negatively related to depressed mood state. Confidant support was related to lower levels of depressed mood for younger respondents only. But neither marital status, nor advisor support, nor social integration was related to mood state. Researchers further concluded that both instrumental and emotional support are key in affecting depressed mood among people with disability, but all types of social support are not equally effective. This conclusion directs my study to differentiate the effectiveness of particular types of social support on the mental health of the Chinese disabled people.

Another research done by Kutner (1987) examined characteristics of available social ties, perceived support, and received support among a sample of persons with chronic disabling health conditions (N=332). Of particular interest in this study was the relationship of perceived support and received support to disabled respondents' view of their overall health status, a simultaneous assessment of both psychological and physical well-being. Perceived support was measured by the nine-item cohesion subscale of the Family Environment Scale (Moos & Moos, 1981) that assess an individual's perception of the degree to which family members are helpful and supportive. Received support was measured by asking if anyone---spouse, parent(s), child(ren), other relatives, neighbor(s), friend(s), or anyone else---took time off from work or home responsibilities to help them, and, if so, describing the nature of the help they received from these sources. Perceived health status was assessed by a ten-rung ladder graded from low (1) to high (10). Research results found that perceived support from family was high for all respondents, but perceived health status did not vary with amount of perceived support. It is possible that the high level of family concern experienced by respondents contributed to awareness of their dependency on others and therefore did not contribute to a significantly enhanced sense of physical and psychological well-being. In contrast, perceived health status tended to vary with amount of received help. Received support appeared to be more important for the respondents in the study. This point encourages my study to clarify the relative contribution of received and perceived social support to maintaining the mental health of the physically disabled in the Chinese context.

Other than the research on disabled population, a large body of social support literature focuses on the elderly. A typical study conducted by Lin and his associates

(1999) identify social support as two major components: its structural bases and its functional elements. Structure may include community ties, social networks and intimate ties, respectively representing the outer layer (belongingness), the intermediary layer (bonding), and the inner layer (binding) of social relations and should exhibit differentiated effects on mental health. They further hypothesize that these structural elements in sequence provide functional (i.e., instrumental-expressive, perceived-received, routine-non-routine) support which, in turn, prevent or protect against distress. Using data from the 1993-1994 Albany survey, they construct measures for elements of structural and functional support to test the relationship between the two as well as their effects on depression. Their results confirm that elements of structural support differentially affect functional support, and that the elements of both structural and functional support exert direct effect on depression. Structural support also exerts indirect effect on depression, mediated by functional support. Another study on the mediating effect of social support on the mental health maintenance of older people adds proof to their strong association, too. In the research, Newsom & Schulz (1996) examined the relations among physical functioning, social support, depressive symptoms, and life satisfaction in a national sample of 4,734 adults age 65 and older. Regression analyses found that impairment was associated with fewer friendship contacts, fewer family contacts, less perceived belonging support, and less perceived tangible aid, but only measures of perceived support predicted depressive symptomatology, and perceived tangible support was far more predictive of depressive symptoms than appraisal support. A structural equation modeling approach was then used to explore the mediational role of perceived social support in the relation between impairment and quality of life variables. Results are consistent with the hypothesis that lower reported social support is responsible for decreases in life satisfaction and increases

in depressive symptoms found among the older adult population. It further emphasizes that maintaining a sense of security and control over one's environment, rather than a sense of belonging, may be the most important priorities for the support to function.

Research pertaining to social support and mental health issues can also be found in the Chinese context. In search of the Hong Kong literature, many a study provided insightful analysis of the relationship between social support and mental health of refugees (Roberts et al., 1982), residents of demolished district (Mok, 1990), divorcing women (Cheung & Kwok, 1999), the mentally ill (Leung, Wong, & Siu, 1991; Ma, 1992), the elderly (Chi & Chou, 2001; Chou & Chi, 2000; Chou & Chi, 2001), female Filipino domestic helpers (Holroyd, Molassiotis, & Taylor-Pilliae, 2001), or members of diverse self-help groups for the chronically ill, the mentally ill, the physically or mentally disabled and other social/marginal groups (Mok, 2001; Yip, Kwok, & Cheng, 1991; Yiu & Ng, 1989). Most of these studies replicate the findings of western research and demonstrate how social support operate in preventing depressive symptoms in the local setting. For example, with a representative community sample of 1106 Chinese people in Hong Kong aged sixty years or older, Chi and Chou's (2001) study examined the association between social support and depressive symptomatology among the understudied population. They viewed social support as a multi-dimensional construct and measured a full range of all the dimensions including social network size, network composition, frequency of social contact, satisfaction with social support, instrumental and emotional support, and helping others. By the effort it is confirmed that each aspect of social support is related to mental health independently. Support from family is more important than support from friends among the older Chinese adults, and satisfaction with social

support is the most important predictor of depression among various measures of social support. It was also found that instrumental support is more important in preventing depression for elderly individuals in Hong Kong than emotional support. Compared to western studies, findings of this research were consistent with them in some aspects that support the generalizability of these data but were quite singular in others which highlight cultural differences in the effect of social support on depression. It provided valuable interpretations for my study to use for reference.

As for the case in Mainland China, study of the disabled population paid less attention to either their mental health or the role of social support in fulfilling a health-related function. They focus more on addressing their employment problems, the status qua of their support networks, the role of government and society in support provision, and the service models in practice (Chen, 2000; Jia, 1991; Zhang, 2002; Zhu, 1995). Nevertheless, there are researches relating to the link between social support and mental health among other populations such as the chronically ill (Huang et al., 1996) and the elderly (He, 2002). With a representative sample of 638 people aged 60 or above residing in the rural areas of Shanxi Province, the west of Mainland China, He's (2002) study examined the effect of socio-economic status, social support, and the change in social networks on the physical and mental health of the elderly. By incorporating multi-dimensional measures of both the quantity and quality of social support, his study revealed that the quantity of social support received by the elderly is not predictive of their life satisfaction when it is measured by the size of their support networks. Yet the quantity variables show significant effect if examined by categorizing the support providers into spouse, children, and friends, or by clustering the different kinds of social support into four factors, big support, emotional support, companionship support and small support. It was found

that whether or not having spouse is correlated with both their life satisfaction and their self-evaluated physical health status. How many children they have is also predictive of their life satisfaction, while the amount of friends shows no effect on either physical or mental health. Among the four categories of social support, only companionship support is beneficial for their physical and mental health status. As for the quality of social support, the strength of ties among their support networks, which is indicative of the willingness of the network members to provide support, is associated with higher life satisfaction, but has no effect on physical health status. While the average income of the network members, one aspect of the network capital indicative of the actual ability of the network members to provide support, has significant effect on both physical and mental health of the elderly, and the effect of network capital is stronger than the tie strength. Of all the relevant factors, the loss of members from the support networks has the greatest negative effect on the physical and mental health of the elderly. In brief, the attempt of this study to distinguish the effect of the quantity and quality of social support on physical and mental health, as well as the multi-dimensional measures of these two aspects of social support, provides valuable reference for my study to use.

In addition, still some other studies on social support networks of the elderly or general populations in Mainland China have great implications on my study in cultural terms (Zhang, 2001, 2002; Zhang & Ruan, 1999). They explain the nature and formulation of such support networks by characteristics embedded in the Chinese socio-cultural background. For example, using data obtained in 1996, Zhang and Ruan's (1999) study on the social networks of urban and rural residents in Tianjin demonstrated that kin play a most important role in social support networks of both urban and rural residents, especially in the financial domain. Workmates and

friends appear to be more important in emotional support than they do in financial matters, and neighbors are crucial for rural residents in both financial and emotional terms. Specifically, they provide interpretations unique to the Chinese society from cultural and institutional perspectives, on the essentiality of kin in social support especially in instrumental support and the significance of friends in emotional support. Firstly, from the cultural perspective, family has been consistently acknowledged as the most important mechanism by which the traditional Chinese social order is maintained (Yang, 1959). “The family, a primary social unit of any social organization, was consciously cultivated in China perhaps more than in any other country in the world and achieved higher importance.” (Lang, 1946, p. 9). Fei (1947) employed “*chaxu geju*” to describe the concentric social relation structure among Chinese people which is shaped by the closeness of positions to the focal person. Liang (1949) also pointed out that it is the moral and ethical obligation rather than rationality that regulate the behavior of Chinese people. The structure of differentiations determines that the egocentric circles of obligations prioritized from one’s family at the core and spread outward to other relations. This explains why people prefer to seek financial support from kin, for the principle underlying such a transaction among kin is trust and obligation rather than cost-effect calculation. It guarantees the support to be provided and continued even though the party being supported may not be able to reciprocate. Secondly, from the institutional perspective, the definite tendency in Chinese policies to keep people in place and to control social mobility makes it necessary for kin to live together. It is the special living arrangement that greatly reinforces the family relations and the inter-dependence in social support especially in instrumental support. Thirdly, in view of the uneven role that kin plays in instrumental support and emotional support, the unbalanced structure of family relationships resulted from the paternalism in Chinese culture

provides a reasonable explanation. Among the so called “*wu lu*”, which defines the five most conventional entries of relationship maintained by Chinese people, three of them are relevant to family relationships, the paternity, the couple, and the brotherhood. They are all unequal relationships where the former is dominant over the latter. Since people might well possess a powerless status in the family sphere, they prefer to talk with someone outside who they feel at equal status to communicate in terms of emotional issues. Although the focus of the study mentioned above is not exactly the same as mine, the cultural explanations would lend me a very useful tool to understand the features of social support among the Chinese disabled population and to interpret how they function on the mental health of the disabled. Besides, similar results and explanations are also provided by Taiwanese research (Fu, 2002; Lin, 1996; Hsung, 1994; Yi, 1999).

2.4 Implications for the Study

The foregoing review of literature has profound implications for my study. Firstly, they provide with me an operational typology criterion of social support to be applied in my study: the received-perceived and instrumental-emotional dimensions. In light of the typology criterion, social support is decomposed into four domains, each of which reflects a specific combination of these two dimensions (see figure 1). Examining the relative and conjoint effect of these four support types frames the body of my research.

	Received	Perceived
Instrumental	RSS (I)	PSS (I)
Emotional	RSS (E)	PSS (E)

(Figure 1 Typology of Social Support)

Secondly, the three debates in literature pertaining to the comparative effectiveness of different types of social support direct my study to try to clarify the controversial issue among the Chinese disabled population, and to further reveal how the provision of social support enhances individual's mental health. With reference to the literature reviewed before, I was attracted to pay some attention to the two concepts of social capital and social exchange, and attempt to provide additional interpretations on the support-health association from these two theoretical perspectives. In my assumption, people with physical disabilities usually suffer from their lower socioeconomic status resulted from their lower human capital. Compared to the able-bodied counterpart, they are prone to be at higher risks of experiencing serious depression. Resources they can resort to or mobilize from their support networks, called social capital here, become particularly significant for them to compensate for the lack in human capital, thus helping promote their mental health. Perceived social support may also operate in the sense by easing the anxiety about situations they may fail to deal with well because of their limited human capital, for they can expect social capital to work in such cases to make up for the limits. Nevertheless, since the support relationships are usually unbalanced with the disabled gaining more than what they may provide, the principle of reciprocity in social exchange may play a role in modifying the effect of social support on the mental health of the disabled. Whether or not the support to be beneficial may depend on how the principle of reciprocity operates. My study will put an effort on revealing and explaining the issue from this point of view.

Thirdly, the contradictory findings on the effect of social support in literature provoke my study to examine how other factors in concern may impact the support-health association. Actually it has been argued that social support may or

may not beneficially affect well-being, relying on its appropriateness for the situation and person. The appropriateness of a specific kind of social support may be dependent on a match of the type of support offered, the type of problem encountered, and the nature of support relationships maintained. In a large variety of studies, the extensive and frequently contradictory findings on the role of social support shed light on the importance of determining who, what, for whom, when and under what circumstances social support affects health outcomes. Hereby it is necessary to examine whether moderator variables intervene with the link between social support and mental health in order to clearly display the operation of social support in predicting psychological well-being. In view of the sporadic discussion of such factors as the attitude of supporters, the satisfaction with support, the reciprocity of support relationships, and the personal agency, which tap the quality or nature of social support received, about their impact on the health outcomes, I find it truly necessary to incorporate them into my research framework as supplement to merely measuring the quantity of support received. It is the first time they are simultaneously considered in one study of the disabled population in Mainland China. Selection of these factors bases on the following assumptions that are mentioned now and then in literature. Social support operates along a process involving two interactive parties, provider and recipient. Generally speaking, long-term provision of support may place demands and concomitant burdens on the support giver. The attitude of givers to provide support over a prolonged period and the satisfaction of the recipients with the support they receive are central to the function of social support. Moreover, from the exchange perspective, social support is more considered as an exchange process than as a unilateral flow of resources and aids, wherein the norm of reciprocity plays a critical role in the operation of support. Balance is a central concept in the case that help exchange within particular

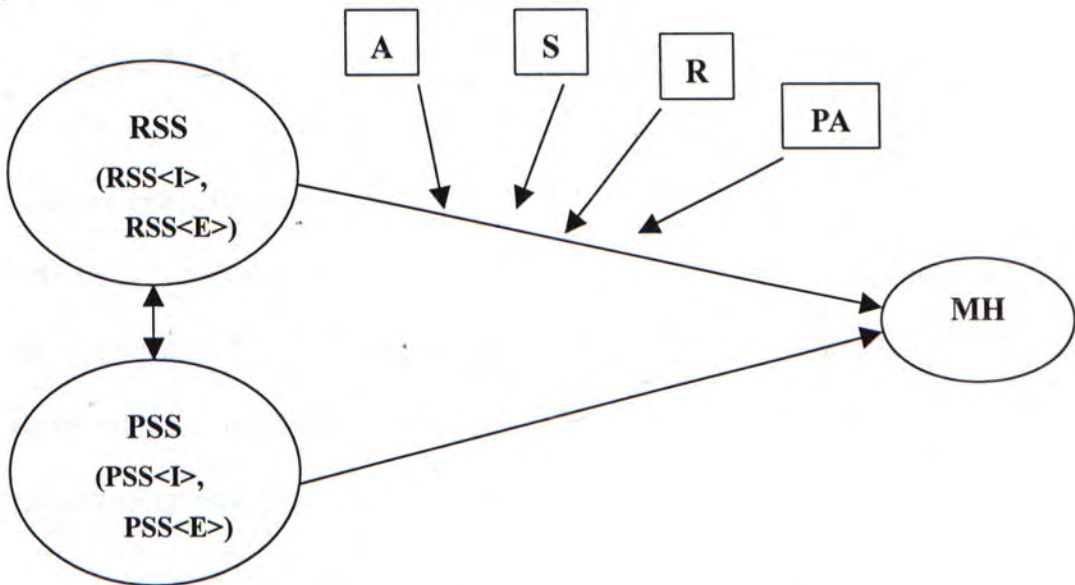
relationships should not be too one-sided so that one party is always giving and the other party is always receiving support (Finch, 1989). Being dependent in the exchange relationships may potentially impair psychological well-being for the uncomfortable experience of indebtedness (Greenberg, 1980; Lee, 1985). In addition, whether or not are the individuals willing to mobilize support is also crucial in predicting the support effect. Wellman and Frank (2001) referred to “individual agency” as a significant predictor of the availability of network capital. The degree to which people make use of social support on their initiative is another relevant factor that determines if a supportive behavior from a particular giver will have a beneficial effect.

Finally, researches conducted in the Chinese context stimulate me to explore the effect of social support by taking culture into account. From a sociological standpoint, individual behavior is regulated by the institutional norms of society and culture (King, 1992). In a society that attaches particular importance to social relations and shapes a particular structure in social networks, it seems more appropriate to stress the cultural elements in explaining the operation of social support. Although culture is difficult to be operationalized as measurable variables in my study, it serves as the background upon which the effect of social support can be adequately understood.

Chapter 3 Research Design

3.1 Research Framework

As clarified in the last chapter, the received-perceived and instrumental-emotional dimensions are utilized in my study as the typology criterion. A total of four types of social support are so distinguished that determining their relative and conjoint effect on mental health constitute the main body of this research (refer to figure 1). Together with the support categories, a couple of personal or interactional variables assumed having moderator effect, such as attitude of the support provider, satisfaction with the support, reciprocity of the support relationships, and personal agency of the support recipient, are also incorporated into the framework. Chief hypothesized relationships are showed below in a diagram (see figure 2).



(Figure 2 Research Framework)*

RSS---Received Social Support, PSS---Perceived Social Support, MH---Mental Health, A---Attitude of Support Provider, S---Satisfaction with Support, PA---Personal Agency, R---Reciprocity of Support Relationships

In view that received social support (RSS) includes both received instrumental support (RSS <I>) and received emotional support (RSS <E>), and that perceived social support (PSS) includes both perceived instrumental support (PSS <I>) and perceived emotional support (PSS <E>), analysis will be performed with each of these four kinds of social support, the four major predictor variables in my research. Developed from the above framework, four research hypotheses would be tested in the current study:

H1: All four types of social support, received as well as perceived instrumental and emotional support, have beneficial effects on the mental health of the physically disabled.

H2: Either instrumental or emotional, received social support and perceived social support are not equally effective in maintaining mental health of the physically disabled when the socio-demographic variables are held constant.

H3: Either received or perceived, instrumental social support and emotional social support are not equally effective in maintaining mental health of the physically disabled when the socio-demographic variables are held constant.

H4: The effectiveness of received social support would vary with the influence of other moderator variables like the attitude of support providers, satisfaction with social support, reciprocity of support relationships, and personal agency of the support recipients.

3.2 Research Methodology

The study follows the quantitative paradigm in research methodology. According to Creswell's (2003) definition of the three elements of inquiry, the study adopts a postpositive knowledge claim, which embodies an objectivism epistemology and a

postpositivism philosophical stance as Crotty (1998) suggested. On the deterministic philosophy that deems causes probably determine effects or outcomes, it chooses a cross-sectional survey as the strategy of inquiry, using close-ended questionnaire for data collection and statistical techniques for data analysis as research methods.

Selecting this quantitative approach for my research design is in line with the criterion addressed by Creswell (2003), the match between problem and approach. Certain types of social research problems call for specific approaches. The quantitative approach is most appropriate if the problem is identifying factors that influence an outcome, understanding the best predictors of outcomes, or testing a theory or explanation (Creswell, 2003). In addition, the choice of research approach is also determined by the purpose of the proposed study. The quantitative approach is best for studies with the intent to generalize findings from a sample to a population (Babbie, 1990). Given my study is aimed to reveal the causal relationship between social support and mental health in the physically disabled sample, and further infer to that among the physically disabled population, it is justified to follow the quantitative paradigm in accordance with above two principles.

3.2.1 Sample

Data for the current study was obtained from a survey in Guangzhou in August 2002, with a representative sample of 204 cases.

Guangzhou is the capital city of Guangdong Province, lying in the south of Mainland China. According to 1987's national survey of people with disability, there are approximate 2.5 million disabled people residing in Guangdong, of which the physically disabled takes 12.6 percent (Guangdong Disabled Persons' Survey Office,

1988). Calculated from the survey result in accordance with the change in total population, there are currently about 250, 200 disabled people resident in Guangzhou, taking 3.8 percent of the entire population of the city. About 12.83 percent of the families in Guangzhou have a disabled person lived in (GDPF, 2003). Given the case of Guangzhou as one of the largest metropolises that host a great many disabled persons, study on the disabled population in the city is expected to be representative of the situation in the south urban areas of Mainland China.

To seek generalizability of my research results, my sampling followed the multi-stage cluster approach, which began from randomly selecting four districts out of Guangzhou's eight districts, Dongshan, Liwan, Haizhu, and Panyu, proceeded with selecting two to six streets in each of these four districts, and then focused on two to five "*juweihui*"* in each of these streets, with all the physically disabled resident in the selected "*juweihui*" being included as my subjects. By so performing 212 cases were drawn from a total of 38 "*juweihui*"* located in 13 streets of 4 districts in the large city, which constitute a representative sample for my study. Nevertheless, on the assumption that adults with disability may be more susceptible to depressed symptoms for violating the age-related norms holding that people in midlife ought to be self-sufficient and not rely on others (Rook, 1987; Hirdes & Strain, 1995), as well as the Chinese view that people aged above 18, the age indicative of adulthood, but lower than 60, the age traditionally set for retirement, are expected to have the responsibility and capability to sustain their own living, I further narrow my analysis on respondents aged between 18 and 60 in an effort to avoid entangling the issue under concern with other problems like elderly support.

* The special administrative unit in Mainland China that deals with affairs of residents.

Filtering out the cases not included in the age range, there remain 204 valid cases in the sample for analysis.

3.2.2 Measurement

The survey was conducted on a specifically designed structural questionnaire, which covers adequate information of major variables in my research framework through employing multiple ways of measurement. It was developed and pilot tested before the study began.

Received social support is measured by support network size and the frequency of contact with supporters that represent the quantity of actually received supportive transactions, which can be of the emotional or instrumental variety. This choice of measurement is underpinned by the assumption that the larger one's network, the more support one can obtain, which has been consistently demonstrated in social support literature. Worthy of special notification, "size" here is restricted to that of support network. Only members who provide support to the focal person in his or her social network can be counted as a component of the support network, for members in one's social network do not necessarily provide support. Instrumental and emotional support is distinguished through matching certain support behaviors to their providers that are counted by the respondents as members of one certain support network. Other than the structural feature, frequency of contact, an interactional indicator, is indexed jointly with network size to measure the quantity of received support. It is assumed that the more frequently the interaction occurs, the more support it transacts. Besides, frequency of contact also manifests accessibility of support. Many findings contend that the more contact, the more supportive the relationship. Frequent contact fosters shared values, increases mutual awareness of

needs and resources, mitigates feelings of loneliness, encourages reciprocal exchanges, and facilitates the delivery of aid (Homans, 1961; Clark & Gordon, 1979; Marsden & Campbell, 1984; Galaskiewicz, 1985; Connidis, 1989; Bumpass, 1990; Espinoza, 1999; Wellman, 1999).

Perceived social support is measured by the Perceived Social Support Scale (PSSS) designed by Zimet and his colleagues and revised by Blumenthal (1987), which stresses the self-understanding and self-perception of social support by the individual. It provides us with the respondent's assessment about a hypothetical situation in which support might be needed (Wethington & Kessler, 1986). PSSS is composed of 12 items (Items 1-6, 8-13 in Q. 23 of the Questionnaire in Appendix I), each of which is scored in a range of seven points from Definitely Disagree to Definitely Agree, and sum of all the item scores will ultimately make the total score, with higher scores indicating more perception of social support. The Chinese version of PSSS, named *Ling Wu She Hui Zhi Chi Liang Biao* (Refer to Q. 23 of the Questionnaire in Appendix II), has been tested to be valid and reliable in studies of psychological adjustment with cancer, surgery and chronic illness samples (Huang et al., 1996), in which the PSSS score is revealed negatively correlated with other symptomatology scores such as depression, paranoid and mental disorder. To further distinguish the perception of instrumental versus emotional social support, as elaborated in my research framework, I add another two items indicative of instrumental social support to the original scale in my study, "There is someone who will help if I need economic support", and "There is someone who will help if I need daily care support" (Refer to items 7 & 14 in Q. 23 of the Questionnaire in Appendix I). They are added because the instrumental social support is not explicitly addressed in the original scale to examine perceived social support, while, in my opinion, it

should be an essential component of perceived social support for the physically disabled population in Mainland China, where the social security system is still lacking to provide them with sufficient financial support and institutionalized daily care. It is necessary to allow these two items indicative of instrumental support to supplement emotional support, which has been explicitly addressed in the original scale, to make a more integrated measure of perceived social support for the Chinese disabled population. The total score of the modified scale ranges from 0 to 98. As far as its reliability is concerned, later statistical test showed that the Cronbach's alpha is 0.88, as described in the next chapter (refer to P. 56).

Mental health, the criterion variable in my study, is measured by the 20-item CES-D Scale (Radloff, 1977) that examines the present level of depression of the respondents (Refer to Q. 24 of the Questionnaire in Appendix). Designed to apply in general population though (Radloff, 1977), it has been widely used as a measure of distress among patients with chronic diseases (Blalock et al., 1982; Fifield & Reisine, 1992; Hawley & Wolfe, 1988; Smith & Wallston, 1992). Each response of its twenty items is scored from zero (Rarely or None of the Time) to three (Most or All of the Time) on a scale of the frequency of depression symptoms' occurrence during the past week, and the total score will range between 0 and 60, with higher scores indicating more depressed symptoms. Scores that are equal or more than 16 are indicative of clinical depression as a traditional used cutoff threshold. The CES-D scale was designed for use in studies of the relationship between depression and other variable across population subgroups, and has proven to be a most frequently employed scale in social support research (Kessler & McLeod, 1985). Being translated to apply in Chinese settings, the Chinese version of CES-D has been validated in earlier studies (Chi & Boey, 1993; Lin, 1989) and obtained acceptable

reliability (Chi & Chou, 2001; Chou & Chi, 2000, 2001; Lin, 1989).

As for the moderator variables, a set of questions appear in the questionnaire (refer to appendix) to let the respondents clarify the source of each support, to rate the attitude of each supporter (**Attitude***) and their satisfaction with the support received (**Satisfaction***), to clarify if they also provide such support back to their supporters (**Reciprocity***), and to express if they will actively seek support from kin, friends, neighbors, or co-workers (**Personal Agency***). In addition, socio-demographic information such as gender, age, education, marital status, employment status and income are also gathered as control variables in analysis.

3.2.3 Data Collection

The work of data collection was carried out in Guangzhou in August 2002. Before the survey began, the questionnaire was pilot tested with a small sample of 15 cases. The pilot test served two important functions. On the one hand, it allowed me to field-test my instrument. Given that scales used were introduced from western studies, and part of the questionnaire adopts self-designed indicators, it was necessary to assess the applicability and clarity of the measures in a local setting through an beforehand pilot test, seeing if the respondents can exactly understand the meaning of the questions. Questions not appropriate were modified in accordance with problems identified by the test. On the other hand, it provided an opportunity to train the research assistants. As the pilot study proceeded, they became more and more familiar with the questionnaire and competent to maneuver the interview process. This helped guarantee the quality of data collection afterward.

* The four moderator variables in my research framework

In view that most of the people with physical disability might encounter difficulties in completing the questionnaire on their own, trained research assistants administered the questionnaire to respondents who were selected to compose my survey sample in face-to-face interviews. Each of these interviews lasted forty minutes or so, firstly winning the consent of the respondent as a fundamental rule in consideration of ethical principles. Confidentiality of information was also assured in advance to each of these respondents. To ensure the quality of data collected, I supervised the whole process by myself, and re-interviewed some of the respondents at a 5% rate.

3.2.4 Data Analysis

The survey data was processed with SPSS to establish the causal models displaying the relationship between different types of social support and mental health of the physically disabled. Data analyses for the study were performed in the following steps.

Step 1 Descriptive statistics were used in the form of means, standard deviations, frequency, and percentages to display the mental health status as well as the nature of social support received and perceived by the physically disabled persons. Specifically, it focused on illustrating the structural, compositional and interactional features of their social support networks in both instrumental and emotional domains, which are most characteristic of the cultural particularity in the Chinese context.

Step 2 Bivariate statistics were used to assess the significance of correlations among mental health and social support, socio-demographic, and other variables of interest. It was an elementary exploration of determinants of the disabled people's mental health. In addition, it provided basic knowledge to facilitate creating regression models in the sequent multivariate analysis.

Step 3 Multivariate statistics were used to develop causal models explaining the comparative contribution of different variables as they combine to influence the mental health of the physically disabled. With the linear hierarchical multiple regression analysis, it was aimed to differentiate the relative effectiveness of different types of social support on mental health, and to examine the respective effect of moderator variables on the link between support and mental health. The regression models developed did reveal how the operation of social support is related to the nature of support, supporters, and support relationships. The results also provided a channel of dialogue with several theoretical perspectives.

Chapter 4 Research Finding I:

Socio-Demographic Characteristics of the Physically Disabled and Their Social Support and Mental Health

4.1 Socio-Demographic Characteristics of the Physically Disabled

The composition of this survey sample in terms of sex, age, education, employment status, and other socio-demographic information is displayed in Table 1.

Table 1 Distribution of Socio-Demographic Characteristics among the Physically Disabled (N=204)

	Mean	SD	Range	Frequency	Percentage (%)
Sex					
Male				113	55.4
Female				91	44.6
Age					
	44.23	7.65	19-59		
Below 35				20	9.8
35 (included)-45				83	40.7
45 and above				101	49.5
Place of Birth					
Native to the City				174	85.3
Other Large Cities				2	1
Middle or Small Cities				20	9.8
Town				4	2
Countryside				4	2
Health Status					
Born with Disability				21	10.3
Disabled after Birth				183	89.7
Age of Being Disabled					
Born with Disability				21	10.3
1				60	29.4
2				24	11.8
3				21	10.3
4 and above				78	38.2

	Mean	SD	Range	Frequency	Percentage (%)
Education					
Illiterate				19	9.3
Elementary School				43	21.1
Junior Middle School				66	32.4
High School/Technical School				64	31.4
Post High School/University				12	5.9
Marital Status (1)					
Single				44	21.6
Married				140	68.6
Unmarried after Divorce				7	3.4
Married after Divorce				3	1.5
Unmarried after Bereavement				8	3.9
Married after Bereavement				2	1
Marital Status (2)					
Having Spouse Now				145	71.1
Having No Spouse Now				59	28.9
Household Size	4.57	1.54	1-11		
1 (Live Alone)				3	1.5
2				7	3.4
3				24	11.8
4				80	39.2
5				52	25.5
6				24	11.8
7 and above				14	7
Labor Ability					
Able				152	74.5
Unable				52	25.5
Employment Status (1)					
Employed				35	17.1
Unemployed or Laid Off				103	50.5
Retired				23	11.3
Self Employed				24	11.8
Student				2	1
Others				6	2.9
Missing System				11	5.4

Employment Status (2)			
On Work			28.9
Not On Work			71.1
Monthly Total Income	468.06	508.77	0-3000
Below 100			24.5
100 (included)-300			13.7
300 (included)-500			22.1
500 (included)-1000			26
1000 and above			13.7

Of the 204 cases, 55.4 percent (n=113) are male while 44.6 percent (n=91) are female. 85.3 percent of them are native residents of Guangzhou. The average age of all cases is 44.23, within the range from 19 to 59. They are seldom born with disability (10.3%) but fall into the adversity resulted from unfortunate accidents after birth (89.7%), most of whom (51.5%) are at the age of 1 through 3. Respondents who currently have a spouse take 71.1 percent of the sample, be they married until now or remarried after divorce or bereavement, while those without a spouse account for 28.9 percent. Only 3 cases are currently living separately without any family members. Most of them (88.2%) live with 2-5 others in the family. The average household size is 4.57 (SD=1.54). With regard to their education, more than 30 percent of all participants received only elementary school education or even no education. Another 32.4 percent received secondary school education and 31.4 percent, high school or other technical schools at the same level. Only 12 cases of them (5.9%) got post high school education but none of them has ever attended university. Almost three quarter of the participants (74.5%) claim to keep the ability to work, but those being currently employed are not more than twenty percent (17.1%). Half of them (50.5%) remain unemployed or laid off. Another 11.3 percent hold their own business so as to be categorized as self-employed. Speaking of the income of the physically disabled, including salary, bonus, subsidy from the

government, and supports from relatives, the majority of them (60.3%) earn less than 500 yuan a month as they report. 26% of them have a total income between 500 and 1000 yuan, and only 13.7% gain 1000 yuan or above. The average monthly income of the 204 respondents is just 468 yuan. Indeed they mostly live in poor financial situations, and the economic status may make a strain in their lives.

Compared with the result of 1987's national survey of people with disability, the distribution of socio-demographic characteristics of this study sample is similar to the distribution of the entire physically disabled population in Guangdong Province, wherein Guangzhou is the capital city. According to data in 1987's survey, there are approximate 2.5 million disabled people resident in Guangdong Province, 12.6% of which are people with physical disability (Guangdong Disabled Persons' Survey Office, 1988). Of the physically disabled, 56.9% are male, while 43.1% are female. Most of them are not born with the disability (87.3%). 65.8% of the physically disabled aged 15 or above keep or partly keep labor ability, while 58.7% of them are not employed at the time the survey was conducted, although they were able to work. Speaking of the source of their income, about 30.39% is gained on their own labor, 64.85% comes from the support of kin, and 4.76% is the relief of the state. The only exception that the current survey sample differs from the entire distribution of the physically disabled population in Guangdong is on education. The proportion of illiterate (39.1%) and elementary school education (39.4%) in the whole population are obviously higher than their counterpart in my sample. Correspondingly the proportion of junior middle school (16.2%), high school (4.6%) and post high school (0.7%) education are obviously lower in the whole population. But the discrepancy is possibly due to the rural-urban disparity in the educational conditions. Since my sample is drawn from people living in Guangzhou, the capital city of Guangdong,

while the data of 1987's survey cover larger areas of the province including countryside, it is natural that they display different distributions of education among the physically disabled. In brief, the evident similarity of the socio-demographic distribution between these two sets of data signifies the representative of my survey sample and greatly enhances the credibility of findings of this study when they are generalized to explain the situation of the entire population.

4.2 The Mental Health Status of the Physically Disabled

Mental health status, which is measured by the CES-D score ranging from 0 to 60, is the core analytical variable in my study. Overall, the respondents exhibited truly high levels of depressive symptomatology. Judged by the conventionally employed cutoff point of 16 in both western and China studies as threshold, more than half of the sample (53.9%) had CES-D scores indicative of clinical depression, a dramatically higher rate than that reported by a western study on the physically disabled residing in communities of southwestern Ontario (35%-37%), and far higher than the non-disabled comparison sample in the same study (12%; Turner & Noh, 1988). The mean score of CES-D among the present disabled sample was 19.47 (SD=12.76), significantly higher than that found in some western studies on rheumatoid arthritis patients (range from 11.6 to 15.8; Blalock et al., 1989; Brown et al., 1989; Goodnenow, Reisine, & Grady, 1990; Tracey et al., 1991) and that found in a study on Chinese elderly people in Hong Kong (11.55; Chi, 2001), even far higher than that found in general populations (7.94-9.25; Radloff, 1977). This confirms the earlier statement that physical disability is associated with dramatically elevated risk for depression, and the point is particularly salient among the current Chinese disabled sample. Accordingly, mental health of the physically disabled is indeed worthy of special investigation, so are factors expected to affect their mental health

as well as policies and services expected to help promote their mental health.

Analysis of variance found no significant difference on CES-D score among groups of different gender, age and marital status. But respondents in possession of varied education, labor ability, employment status and monthly total income did appear to experience dissimilar depression according to the significant F value in Table 2.

**Table 2 Analysis of Variance on CES-D by Socio-Demographic Variables
(N=204)**

	Mean	SD
Sex		
Male	19.19	12.08
Female	19.81	13.62
	F=.118	p=.732
Age		
below 35	19.95	9.81
35 (included)-45	18.51	13.04
45 and above	20.17	13.10
	F=.400	p=.671
Marital Status		
Having Spouse Now	18.88	12.71
Having No Spouse Now	20.92	12.87
	F=1.064	p=.303
Education		
Illiterate	24.05	14.16
Elementary School	21.72	12.82
Junior Middle School	18.86	12.57
High School/Technical School	18.70	12.75
Post High School/University	11.58	7.45
	F=2.242	p=.066
Labor Ability		
Able	17.76	12.01
Unable	24.46	13.67
	F=11.213	p=.001

Employment Status		
On Work	16.59	12.55
Not On Work	20.64	12.70
	F=4.289	p=.040
Monthly Total Income		
Below 100	24.22	12.99
100 (included)-300	22.50	13.24
300 (included)-500	19.80	12.51
500 (included)-1000	15.94	11.48
1000 and above	14.11	11.31
	F=4.702	p=.001

Lower levels of depression were observed among the respondents receiving more education, possessing labor ability, currently employed, or gaining higher income. Those who received post high school education or earn more than 500 yuan a month reported mean CES-D scores lower than the commonly accepted criterion that defines severe depression. Subgroup differences in labor ability and monthly total income result in the most significant discrepancy in the depressive symptomatology according to the degree of significance.

The CES-D scale has been widely used in studies of the relationship between depression and other variables across population subgroups, and has proven to be a most frequently employed scale in social support research (Kessler & McLeod, 1985). Being translated to apply in Chinese settings, the Chinese version of CES-D has been validated in earlier studies (Chi & Boey, 1993; Lin, 1989) and obtained acceptable reliability (Chi & Chou, 2001; Chou & Chi, 2000, 2001; Lin, 1989). Results of reliability test prove that the CES-D scale maintains a high internal consistency when used in the current disabled sample. The Cronbach's alpha of the total scale is 0.89. No single item significantly reduced the reliability of the total

scale by calculating the alpha coefficients with each item removed.

4.3 Perceived Social Support of the Physically Disabled

Perceived social support in the study is measured by the Perceived Social Support Scale (PSSS), which has been applied in studies of cancer patients in China with the Chinese version (Huang, Jiang, & Ren, 1996). In an initial effort to distinguish the instrumental and emotional sides of perceived social support, as identified in the received social support, to match the typology of social support in the research framework, I add two new items indicative of instrumental social support (economic support and daily care support) to the original scale (refer to P. 44 for the modified scale and detailed explanation) and the total score of the new scale ranges from 0 to 98. The two items are added because the instrumental social support is not explicitly addressed in the original scale to examine perceived social support, while, in my opinion, it should be an essential component of perceived social support for the physically disabled population in Mainland China, where the social security system is still lacking to provide them with sufficient financial support and institutionalized daily care. It is necessary to allow these two items indicative of instrumental support to supplement emotional support, which has been explicitly addressed in the original scale, to make a more integrated measure of perceived social support for the Chinese disabled population. Used in the current disabled sample, the modified Perceived Social Support Scale obtained a high reliability with the Cronbach's alpha equaling 0.88. No single item significantly reduced the reliability of the total scale by calculating the alpha coefficients with each item removed.

Descriptive analysis reported that the mean PSSS score of the current sample is 66.27, with a fairly large standard deviation of 14.53. Analysis of variance found that

the experience of social support varies across the subgroups of different marital status, educational level and monthly total income (see Table 3).

Table 3 Analysis of Variance on Perceived Social Support by Socio-Demographic Variables (N=204)

	Mean	SD
Sex		
Male	66.60	15.35
Female	65.87	13.52
	F=.128	p=.721
Age		
below 35	69.45	14.35
35 (included)-45	64.89	14.36
45 and above	66.78	14.71
	F=.915	p=.402
Marital Status		
Having Spouse Now	68.30	13.12
Having No Spouse Now	61.31	16.62
	F=10.148	p=.002
Education		
Illiterate	62.84	11.83
Elementary School	61.44	16.06
Junior Middle School	66.59	14.76
High School/Technical School	68.06	13.06
Post High School/University	77.75	11.96
	F=3.771	p=.006
Labor Ability		
Able	67.20	14.57
Unable	63.58	14.21
	F=2.423	p=.121
Employment Status		
On Work	68.68	14.05
Not On Work	65.30	14.65
	F=2.286	p=.132

Monthly Total Income

Below 100	63.52	12.54
100 (included)-300	64.61	14.91
300 (included)-500	63.33	15.38
500 (included)-1000	69.15	15.21
1000 and above	72.14	12.85

F=2.756 p=.029

Respondents who currently have a spouse reported higher PSSS score (Mean=68.30) than those without spouse (Mean=61.31), and the distinction is significant ($p<.01$). People receiving high school education or above perceived more social support than those with lower levels of education, and their mean PSSS score is higher than the mean of the total sample. Besides, the perceived social support scores are also on raise as the monthly total income increase. Respondents earning more than one thousand yuan a month did report a mean score of PSSS (77.75) far higher than the mean of the total sample (66.27) both in substantial and statistical sense. Similar to the case of CES-D score, gender and age make no difference in perception of social support among the physically disabled.

Principle component factor analysis failed to elicit factors featured by instrumental and emotional distinction as expected, but the three factors defined from the fourteen items did tap the perceived social support as from different sources, kin, friends and other people, identical to its original factor structure suggested by Blumenthal (1987). Item 3, 4, 9, and 12 characterize support from family, in both instrumental and emotional variety. Item 6, 8, 10, and 13 refer to the reliability of friends' support in times of need. The rest six items, 1, 2, 5, 7, 11 and 14, indicate support from non-specific sources. This strongly implies that the perception of social support is closely connected with where the support comes from, and the sources of support

present a manifest social relation structure of Chinese people, which has been defined by Fei (1947) as *chaxu geju*, the concentric pattern of social relations with positions measured by how close one stood in relation to the actor. Family members are always placed in the innermost circle around the actor in regard to almost any issue including providing or seeking support, and then extending to friends and other people with more removed connection with the focal person. Although the interpretation of the factors is beyond the focus of this study, for PSSS score is just taken as an analytical variable in my examining the relationship between social support and mental health, the internal structure of PSSS does mirror a distinct feature of social relations among the Chinese people, which makes the base whereon social support operate. The utility of such a particularistic social relation structure in the Chinese society, as displayed by the factor structure of Perceived Social Support Scale, will be discussed in more detail in later parts of analysis.

Worthy of special clarifying, since the failure of factor analysis to produce factors indicative of instrumental support and emotional support respectively, the initial attempt to categorize perceived social support into perceived instrumental support (PSS <I>) and perceived emotional support (PSS <E>) as suggested in the research framework is not feasible then. As a result, perceived social support can only be employed as a singular variable, measured by the total score of the modified Perceived Social Support Scale, in further statistical analyses, so that the major predictor variables in my research design reduce from four to three: received instrumental social support (RSS <I>), received emotional social support (RSS <E>), and perceived social support (PSS).

4.4 Received Social Support of the Physically Disabled

Received social support in my study is typologized into instrumental and emotional social support, in which instrumental support is represented by economic support and daily care support. Features of each kind of social support the physically disabled receive are reflected by the characteristics of support networks they maintain, in structural, compositional and interactional terms (see Table 4).

Table 4 Characteristics of Received Social Support

	Mean	SD	Range	Frequency	Percentage (%)
Economic Support					
Network Size (N=204)	1.48	1.33	0-7		
0				55	27
1				56	27.5
2				57	27.9
3				22	10.8
4 and more				14	6.9
Density (N=149)	0.9869	6.71E-02	0.5-1		
Under 1				6	4
1				143	96
Frequency of Contact with					
Supporters (N=149)	4.6489	1.6374	1-6		
Less than once a week				54	36.2
At least once a week				25	16.8
Everyday				70	47.0
Proportion of Kinship (N=149)	0.9293	0.2422	0-1		
0				8	5.4
Between 0 and 1				5	3.3
1				136	91.3
Proportion of Reciprocal					
Relationships (N=149)	0.3560	0.4601	0-1		
0				89	59.7
Between 0 and 1				12	8.1
1				48	32.2

	Mean	SD	Range	Frequency	Percentage (%)
Daily Care Support					
Network Size (N=204)	1.64	1.31	0-6		
0				41	20.1
1				65	31.9
2				49	24
3				34	16.7
4 and more				15	7.4
Density (N=163)	0.9877	6.81E-02	0.43-1.00		
Under 1				6	3.7
1				157	96.3
Frequency of Contact with					
Supporters (N=163)	5.6924	0.7719	1.5-6		
Less than once a week				11	6.7
At least once a week				20	12.3
Everyday				132	81.0
Proportion of Kinship (N=163)	0.9142	0.2341	0-1		
0				6	3.7
Between 0 and 1				17	10.4
1				140	85.9
Proportion of Reciprocal					
Relationships (N=163)	0.7404	0.4284	0-1		
0				39	23.9
Between 0 and 1				7	4.3
1				117	71.8
<hr/>					
	Mean	SD	Range	Frequency	Percentage (%)
Emotional Support					
Network Size (N=204)	2.43	1.82	0-8		
0				26	12.7
1				50	24.5
2				43	21.1
3				29	14.2
4				29	14.2
5 and more				27	13.2

	Mean	SD	Range	Frequency	Percentage (%)
Density (N=178)	0.9717	8.89E-02	0.50-1.00		
Under 1				20	11.2
1				158	88.8
Frequency of Contact with					
Supporters (N=178)	4.9540	1.1802	1-6		
Less than once a week				52	29.2
At least once a week				46	25.8
Everyday				80	44.9
Proportion of Kinship (N=178)	0.7244	0.3397	0-1		
0				18	10.1
0-0.5 (0.5 included)				37	20.8
0.5-1 (0.5 and 1 not included)				32	18
1				91	51.1
Proportion of Friends (N=178)	0.1794	0.2908	0-1		
0				115	64.6
Between 0 and 1				53	29.8
1				10	5.6
Proportion of Disabled					
People (N=178)	0.1702	0.3168	0-1		
0				130	73
Between 0 and 1				34	19.1
1				14	7.9
Proportion of Reciprocal					
Relationships (N=178)	0.9358	0.2356	0-1		
0				10	5.6
Between 0 and 1				4	2.3
1				164	92.1

According to statistics in Table 4, the physically disabled usually receive more emotional support than economic support and daily care support judged by the size of support network, an indicator consistently demonstrated to manifest the quantity of support received (Bazargan & Hamm-Baugh, 1995; Berg & Piner, 1990; Biegel, Magaziner, & Baum, 1991; Burt, 1983, 1992; Haines & Hulbert, 1992). Mean of the

network size of emotional support is 2.43 (SD=1.82), while means of the network sizes of economic support and daily care support are 1.48 (SE=1.33) and 1.64 (SE=1.31) respectively, indicating less support received from the smaller support networks. As is showed in the last two columns, most of the respondents (55.4%) maintain an economic support network of one or two supporters, and 55 respondents (27%) reported not even one supporter at all. Likewise, most of the respondents (55.9%) have one or two alters in the support network of daily care, and 41 cases (20.1%) reported no such supporters. In contrast, emotional supports are more extensively distributed among this population. Most of the participants maintain larger support networks than they do in economic and daily care support. 41.6 percent of them have more than three supporters in the network, 13.2 percent of which have five or more, but only 12.7 percent (N=26) reported no support received in emotional terms, which is fairly lower than its counterpart in economic and daily care support.

With regard to the density of their support networks (another important network index that is employed to evaluate how close a network is and measured by the proportion of alters knowing each other well in a network), all these three kinds of support networks the disabled maintain can be considered as highly close networks. Of the 149 respondents who receive economic support from at least one such supporter, the average density of support network is 0.9869, and 96 percent of these support networks are so close that any two members of the network are familiar with each other. This is just the same in daily care support networks, where the average density is 0.9877, and 96.3 percent of them are totally familiar networks. The emotional support networks also show a high average density (0.9717) but are not so close as the former two. Only 88.8 percent of the networks are completely composite

of familiar alters. Combined with the larger network size in emotional support, it seems safe to conclude that the physically disabled have access to more abundant and extensive resources in emotional support than economic or daily care support.

It is not difficult to explain the high density when we further look into the composition of these support networks. Research results found that kinship accounts for an extremely large part of all three kinds of support networks, especially among the instrumental ones. Averagely the proportion of kinship in one's economic support network is 92.93%, and 91.3% of all the sample's economic support networks are completely composite of kin. Similarly, the average proportion of kinship in one's daily care support network is 91.42%, and 85.9% of their daily care support networks are entirely composite of kin. The only exception appears in the emotional support networks where kin is no longer the only dominant component. Although the average percentage of kinship in such networks remains high (72.44%), only half of such networks (51.1%) are purely kinship networks. In contrast, friends take more importance in emotional support. Of the 178 respondents who do receive emotional support, 35.4% of them mentioned at least one friend in their support networks, and 5.6% of the emotional support networks are purely composite of friends.

In addition to the structure and composition of support networks, the interaction between the physically disabled with their supporters in these networks is also significant in reflecting the nature and determining the function of the support relationships. In my analyses, the frequency of contact with supporters and the proportion of reciprocal relationships in which the disabled also provide support back to the supporters were used to describe such characteristics.

Frequency of contact with members in support networks presents a descending order from daily care support to emotional support and to economic support. This may be resulted from the different nature of these three kinds of support and in turn from the different demands of them by the physically disabled. Assistance in daily living requires more regular interaction with the supported even in connection with trivial things, therefore the average frequency of contact with daily care supporters comes to be the highest (5.69, with a range between 1 and 6, 6 indicating everyday contact, 4 and above but lower than 6 indicating contact at least once a week, and 4 under indicating contact less than once a week; $SD=0.77$). 81 percent of the respondents reported having contact with each of their supporters everyday, whereas only 6.7 percent reported contact less than once a week. The frequency of interaction with supporters in emotional terms ($M=4.95$, $SD=1.18$) is obviously lower than that in daily care support, but still a bit higher than that in economic support ($M=4.65$, $SD=1.64$). Respondents who reported contacting with their supporters on everyday base decreased to 44.9% and 47.0% respectively, while those reported having contact less than once a week increased to 29.2% and 36.2% respectively. It is in line with our common knowledge that financial needs can be met by contacts through irregular intervals while emotional support and especially daily care are truly difficult to obtain without more frequent interactions with who provide such support. Yet this can also be considered from another perspective that it is more difficult for the disabled to interact frequently with their supporters for financial reasons than for seeking assistance in daily living or consolation on emotional matters.

Apart from the frequency of contact, it is easy to find another interactional characteristic of their received social support that the support relationships are mostly unbalanced in nature in instrumental support. Averagely only 35.6 percent of the

economic exchange happened between the disabled and members in their economic support network are reciprocal, in which the disabled are also able to repay with the same type of support to the supporters. 59.7 percent of the 149 respondents who reported having economic supporters are unable to provide such support back to any of their supporters. They hold a truly disadvantaged position in such exchange relationships. The proportion of reciprocal ties in daily care support networks is larger (74.04%) but still 23.9 percent of the 163 cases getting access to daily care support are completely unable to proffer the support back. Nevertheless, a totally different picture was shown in the networks of emotional support. Reciprocal ties of this field reach 93.58 percent averagely, and 92.1 percent of the 178 respondents who do maintain a support network for emotional reasons proclaim also providing such supports to all members of the support network. In combination with the socio-demographic characteristics of the study sample, it is not difficult to understand that the physically disabled, because of their limitations in physical function, their relatively lower levels of education, and their disadvantaged employment status, they may easily suffer from the deficiency in economic resources and an urgent demand of assistance in daily living, but they may be able to possess abundant resources in expressing care and affection and actually affording such supports among their emotional support networks, especially among the group of members who are involved in the same situation. It is shown in Table 4 that 27% of the emotional support networks include at least one disabled member and 7.9% of them are wholly made up of disabled people. Imaginably, they can establish symmetric relationships within the network only in the domain of emotional support.

In an overview of above analyses, I can sum up the following five features of social support received by the physically disabled. First, the physically disabled tend to

obtain more emotional support than economic or daily care support, judging by the size of these three different kinds of support networks. Second, kin plays a most significant role in their social support, especially the instrumental support. The average proportion of kinship in their economic and daily care support networks are 92.93% and 91.42% respectively, and both of these two kinds of support networks are highly dense. I employed “network closure” to describe such a structural and compositional characteristic. Third, kin also plays a significant role in their emotional support but presents less importance than it does in economic and daily care support. The average proportion of kinship in their emotional support networks is 72.44 percent, and 10.1 percent of the respondents mentioned not even one kin. In contrast, friends take a great part in such support networks. Over one-third of the respondents mentioned at least one friend from whom they seek emotional support. Correspondingly, their emotional support networks are not so dense as the former two. Fourth, the physically disabled tend to keep more frequent contact with supporters in their daily care support networks. The least frequent interactions they make are with financial supporters. Finally, the features of their instrumental and emotional support also differ in the proportion of reciprocal relationships thereinto. Most of the ties (averagely 64.4%) between the physically disabled and their financial supporters are unbalanced, while most of such relationships (averagely 93.58%) in emotional support networks are reciprocal. The situation in daily care support is standing in between where reciprocal relationships account for 74.04 percent.

Actually these results are consistent with findings of some earlier research conducted in both western and Chinese societies. Wellman and Wortley’s East York study (1990) conducted in Toronto contribute valuable knowledge to our understanding on how

community ties are associated with support provision. They come up with a notable point they depict as “different strokes from different folks”, that different types of community ties are likely to provide different kinds of social support, and the nature of relationships themselves principally affects the provision of support in personal community networks. On their findings they suggest that kin, especially the parent-child relationship, is apt to provide financial aid and large services, and it is an important and reliable source of support which is not conditional on the strength of relationship. By contrast, friends are more likely to provide companionship, and the aid depends on the strength of their relationships. Albeit they cautiously note that the link between tie and support may vary across sociocultural milieus where the needs of support arise from different stress, their findings do get resonance from studies in Taiwan and Mainland China. Using data from a nationwide Taiwanese survey in 1982, Hsung’s study (1994) examined the factors affecting emotional and financial support and found that kin tend to provide more financial support and non-kin tend to provide more emotional support, which is similar to that assumed by Wellman and Wortley (1990) with one exception that the financial support is not confined to the parent-child relationship but presents the pattern of extended family. A comparative study on the social networks of urban and rural residents in Tianjin, which is conducted in 1996, also demonstrated similar results that kin play a most important role in social support networks of both urban and rural residents, especially in the financial support networks (Zhang & Ruan, 1999). Workmates and friends appear to be more important in emotional support than they do in financial matters, and neighbors are crucial for rural residents in both financial and emotional terms.

Despite the partial replication of western research results, however, they provide interpretations unique to the Chinese society from cultural and institutional

perspectives. Their insightful explanations on the essentiality of kin in social support especially in instrumental support and the significance of friends in emotional support are applicable for the similar findings of the current study. Firstly, from the cultural perspective, family has been consistently acknowledged as the most important mechanism by which the traditional Chinese social order is maintained (Yang, 1959). “The family, a primary social unit of any social organization, was consciously cultivated in China perhaps more than in any other country in the world and achieved higher importance.” (Lang, 1946, p. 9). Fei (1947) employed “*chaxu geju*” to describe the concentric social relation structure among Chinese people which is shaped by the closeness of positions to the focal person. Liang (1949) also pointed out that it is the moral and ethical obligation rather than rationality that regulate the behavior of Chinese people. The structure of differentiations determines that the egocentric circles of obligations prioritized from one’s family at the core and spread outward to other relations. This explains why people prefer to seek financial support from kin, for the principle underlying such a transaction among kin is trust and obligation rather than cost-effect calculation. It guarantees the support to be provided and continued even though the party being supported may not be able to reciprocate. Secondly, from the institutional perspective, the definite tendency in Chinese policies to keep people in place and to control social mobility makes it necessary for kin to live together. It is the special living arrangement that greatly reinforces the family relations and the inter-dependence in social support especially in instrumental support. Referring to the statistics in Table 1, most respondents of the current disabled sample (76.5%) have three to five people living with them. The average size of their household is as large as 4.57. Obviously the proximity in their living arrangement facilitates kin to fulfill their functions in the area of instrumental support. Thirdly, in view of the uneven role that kin plays in instrumental support and

emotional support, the unbalanced structure of family relationships resulted from the paternalism in Chinese culture provides a reasonable explanation. Among the so called “*wu lu*”, which defines the five most conventional entries of relationship maintained by Chinese people, three of them are relevant to family relationships, the paternity, the couple, and the brotherhood. They are all unequal relationships where the former is dominant over the latter. Since people might well possess a powerless status in the family sphere, they prefer to talk with someone outside who they feel at equal status to communicate in terms of emotional issues. This should be particularly fit for the physically disabled in my study, who are more likely to sense their disadvantaged status in face with other family members on whom they have to depend for instrumental support. It is truly necessary for them to seek emotional support from friends, especially friends who are also disabled, to share their feelings and alleviate stress. According to the statistics in Table 4, 35.4 percent of the respondents mentioned at least one friend in their emotional support networks, and 27 percent of the respondents have supporters in their support networks for emotional sake who are also disabled. Apparently the data verified such cultural interpretations.

Since the focus of this study is not on the characteristics of the social support received or how they come, but on the effect of such support on mental health, I am not going to further analyze the relative importance of different social roles, such as spouse, parents, siblings, other relatives, friends, neighbors, workmates, in providing different kinds of social support as many earlier researches did (Dean, Bohdan, & Patricia, 1990; Hsung, 1994; Wellman & Wortley, 1990; Zhang & Ruan, 1999). However, the features of the structure and composition of their support networks and the interaction mechanisms underlying these support relationships summarized above,

as well as the corresponding cultural and institutional explanations, may help us more deeply understand the relationship between social support and mental health as revealed in the next part of analyses, which makes the core contribution of this research.

Chapter 5 Research Finding II:

The Link between Social Support and Mental Health

To clarify the effectiveness of particular types of social support on the mental health of the physically disabled and to interpret the mechanisms by which social support operates in the Chinese context constitute the two major objectives of this study. Multiple regression analyses were conducted to test the four hypotheses raised to achieve the above objectives. The analyses concentrate on whether all these kinds of social support, either actually received or cognitively perceived, and either instrumental or emotional once received, have beneficial effects on mental health, how their effectiveness differ from each other, and how their effects on mental health would be influenced by other moderator variables.

I chose a linear hierarchical multiple regression analysis, using consecutive blocks, to assess the contribution of socio-demographic, social support, and moderator variables to depression of the physically disabled and to allow each block to act as a control for what followed. The socio-demographic variables were positioned first to create the basic model. By the procedure of analyses, I tried to reveal in such an order that how the mental health of the physically disabled is determined by their socio-demographic backgrounds and how the quantity of their received and perceived social support as well as the nature of their received social support would make for changes in their mental health.

5.1 Bivariate Analysis

To get an elementary knowledge about which factors are influential on mental health and how these factors correlate with each other, before performing the regression

analyses, Pearson's correlations coefficients were computed to examine the complex relationships among CES-D score, socio-demographic variables and social support variables. The full matrix of zero-order correlations of the main variables employed in analysis is presented in Table 5 (next page). It serves as the reference of variable selection in constructing regression models.

Of the socio-demographic variables, the monthly total income has a strong and significant negative correlation with the CES-D score ($C = -.291, p < .001$). The more the income, the better the mental health, for higher CES-D scores indicate lower mental health status. Whether possessing labor ability and the level of education are another two socio-demographic variables significantly correlated with mental health, with the correlation coefficients being $-.229 (p < .01)$ and $-.184 (p < .01)$ respectively. The employment status, which is coded as whether or not on work currently, also has a moderate correlation ($-.144, p < .05$) with the depression score. Gender, age and marital status did not make any difference in mental health according to the bivariate analysis in the sample.

Of the social support variables, perceived social support is significantly related to CES-D score with a considerably high correlation coefficient of $-.398 (p < .001)$. In contrast, among the received social support, only the network size of emotional support, which indicates the quantity of emotional support received, is negatively related to the depression score ($-.158$) at a .05 significance level. The network size of economic support and daily care support display no significant correlation with mental health, neither does the frequency of contact with supporters in all three kinds of support networks.

Table 5 Zero-Order Correlations among the Main Variables Used in Total Sample Analysis (N=204)

	Sex	Age	Marital	Education	Lbility	Employ	Income	CES-D	PSSP	RE _{co} S	FRE _{co} S	RDCS	FRDCS	RE _{mo} S	FRE _{mo} S
Sex	1.000														
Age	.032	1.000													
Marital	.124	.220**	1.000												
Education	.103	-.089	.071	1.000											
Lbility	-.050	-.057	.222**	.326***	1.000										
Employ	.007	-.056	.121	.081	.224**	1.000									
Income	.075	.078	.113	.218**	.139*	.441***	1.000								
CES-D	-.024	.036	-.072	-.184**	-.229**	-.144*	-.291***	1.000							
PSS#	.025	-.006	.219**	.232**	.109	.106	.196**	-.398***	1.000						
RSS (I)															
RE_{co}S	-.089	-.143*	-.132	-.229**	-.128	-.095	-.190**	.020	.195**	1.000					
FRE_{co}S	-.089	-.102	-.117	-.098	-.064	-.203**	-.305***	.024	.060	.481***	1.000				
RDCS	.041	.025	.100	-.004	-.030	-.091	-.026	.038	.293***	.193**	.186**	1.000			
FRDCS	.011	.022	.110	-.150*	-.177*	-.038	-.083	.125	-.030	.140*	.313***	.482***	1.000		
RSS (E)															
RE_{mo}S	-.065	-.029	.183**	.100	.111	.054	.118	-.158*	.427***	.249***	.138*	.394***	.004	1.000	
FRE_{mo}S	-.053	-.024	.183**	-.113	-.127	.050	-.060	-.028	.158*	.140*	.347***	.113	.233**	.062	1.000

* p<.05 ** p<.01 *** p<.001

Lbility=Labor Ability Employment=Employment Status Income=Monthly Total Income CES-D=CES-D Scale

PSS=Perceived Social Support RSS (I)=Received Instrumental Social Support RSS (E)=Received Emotional Social Support

RE_{co}S=Received Economic Support RDCS=Received Daily Care Support RE_{mo}S=Received Emotional Support

FRE_{co}S=Frequency of Contact with Supporters in Economic Support Network FRDCS=Frequency of Contact with Supporters in Daily Care Support Network

FRE_{mo}S=Frequency of Contact with Supporters in Emotional Support Network

Values of Dummy Variables: Sex Male=1 Female=0 Marital Having Spouse Now=1 Having No Spouse Now=0

Lbility Able=1 Unable=0 Employ On Work=1 Not On Work=0

Perceived social support can only be employed as one single variable instead of being divided into perceived instrumental and emotional support according to the factor analysis of PSSS (refer to P. 59)

Among the support variables it is found that perceived social support score is highly correlated with the network size of each of these three types of social support. This presumably suggests that the abundance of supports one can access may help build up the perception of how many potentially available supports he or she can mobilize in times of need. Given that most of the support networks of the physically disabled are kin-centered, dense networks as demonstrated before, it is not surprised to find that the network sizes of the three types of support are also significantly correlated with each other, for members of these support networks might be highly overlapped, each taking multiple roles in providing both instrumental and emotional support. The frequency of contact with network supporters is also significantly correlated with each other, as well as with the network sizes. This situation reminds me to be cautious when incorporating these variables to create regression models in order to prevent multicollinearity of estimates caused by strongly correlated predictors.

5.2 Basic Model

Seven socio-demographic variables, sex, age, marital status, education level, labor ability, employment status and monthly total income, whose effects on mental health were observed from the above correlation analysis or demonstrated by previous research, are included in my analyses to create the basic model. The results of regression analyses reported in the tables displaying the effect of socio-demographic variables, social support variables, and moderator variables on mental health include the standardized coefficients Beta, followed by their standard error in the brackets and the probability of significance test. The variance of CES-D accounted for by each model (R^2) as well as its change brought about by the new added variable(s) to each model (ΔR^2) is also presented, accompanied by the result of significance test for both of them (F).

Table 6 Summary of Hierarchical Regression of CES-D on Socio-Demographic Variables (N=204)

	Equation 1	Equation 2	Basic Model
Sex	.001 (1.802)	-.018 (1.788)	-.006 (1.744)
Age	.035 (1.383)	.014 (1.370)	.044 (1.344)
Marital	-.068 (2.022)	-.017 (2.058)	-.011 (2.005)
Education	-.177 (.843)*	-.118 (.877)	-.068 (.872)
Lbility	---	-.166 (2.226)*	-.170 (2.168)*
Employ	---	-.094 (1.983)	.019 (2.145)
Income	---	---	-.263 (.706)**
RE_{co}S	---	---	---
RDCS	---	---	---
RE_{mo}S	---	---	---
PSS	---	---	---
Δ R²	.039	.037	.052
Change Sig.	Δ F=6.291*	Δ F=3.943*	Δ F=11.719**
R²	.039	.076	.128
Model Sig.	F=2.000 (4, 199)	F=2.687* (6, 197)	F=4.103*** (7, 196)

p<.05 ** p<.01 ***p<.001

According to column 1 in Table 6, when sex, age, marital status and education are entered in the regression equation, the level of education is significantly correlated with the depression score (Beta= -.177, p<.05). The higher the level of education, the lower the score of CES-D, indicating better mental health status. However, when labor ability and employment status are added to the equation in column 2, the effect of education becomes light and non-significant, while the labor ability shows a significant correlation with the mental health (Beta= -.166, p<.05). The introduction of these two new variables accounted for 3.7 percent more of the variance in the CES-D score. As the monthly total income was added to the above equation at the third step, it is found that education presents almost no relationship with mental health at all, while the labor ability remains significant and the monthly total income

presents a strong correlation with the depression score both substantively (Beta=-.263) and statistically ($p<.01$). Another 5.2 percent of variance in CES-D score is explained by the income variable independently. No gender or age effect emerge in any of these equations, neither do marital status and employment status. The total variance of the depressive symptoms accounted for by the socio-demographic variables in the basic model is 12.8 percent.

This result is consistent with my assumption that human capital, as well as the benefits brought about in a large part by human capital, has a great impact on the mental health status of the disabled. As is shown in the regression model, education, a key indicator of human capital, presents a significant impact on the mental health (Beta=-.182, $p<.05$) when independently examined with only gender, age and marital status. But the effect of education can be mediated or even counteracted by labor ability and monthly total income when the latter two are respectively or simultaneously included in the equation. This can be so explained that the function of education is necessary to be embodied by labor ability, which is indispensable to transfer the capital gained from education into benefits endowed in the action fields such as workplace. This should be particularly true on the disabled population whose deficits in physical functioning considerably limit their labor ability, and then reduce the possibility to bring what attained from education into play. Thus the effect of education might be partly presented by the effect of labor ability when they simultaneously enter the equation, while the monthly total income, usually as a result of the combination of education and labor ability, shows the strongest correlation with the mental health indicator, CES-D score, in the final basic model.

Worthy of specially notifying, although presenting no significant effect on CES-D in

the final model, education does show a significant zero-order association with CES-D score ($r=-.184$, $p<.01$; Table 5) and show its unique effect on CES-D when examined with only gender, age and marital status in the first regression model. The fact that education is correlated strongly with the powerful CES-D predictors, labor ability ($r=.326$, $p<.001$) and the monthly total income ($r=.218$, $p<.01$), can account for its failure to explain unique variance in CES-D in the final basic model (Column 3 in Table 6). Therefore it is probably more appropriate to think of education as having an indirect effect on CES-D through labor ability and the monthly total income than as having no effect.

Moreover, it is reasonable to assume here that the lack in human capital, which in turn brings about the lack in other resources such as income, is responsible for the mental health status of the disabled to a great extent. In addition, the significance of income in determining the level of depression also hints that financial concern makes a major strain that largely accounts for the mental health of the disabled. Hereby what remains to be done at the next step is to explore which other factors may show effect on the mental health and how they operate in control of the socio-demographic variables. Social support variables, the estimated predictors of mental health in my research hypotheses as one kind of social capital, are therefore added to the regression model and examined whether they may make up for the lack in human capital so as to alleviate depression incurred by the lack.

5.3 Test of Hypotheses: The Link between Social Support and Mental Health

To test whether all kinds of social support have beneficial effect on the mental health and to differentiate their relative contribution to the effect, which is responding to the first three hypotheses raised in the research design, I performed a series of multiple

regression analyses to examine the effects on CES-D scores of sex, age, marital status, education, labor ability, employment status, the monthly total income, and social support of each kind. My analyses first examine the effects of each kind of social support taken alone and then test for simultaneous effects that have both received and perceived social support variables entered into one regression model. Hierarchical regression technique identified the unique contribution of each kind of support as socio-demographic variables or/and other kinds of support are held constant as well as the change in R square aroused by adding each or all kinds of support beyond the basic model (see Table 7). Each kind of received social support, either instrumental or emotional, is indexed by the size of support network of that kind, while the **perceived social support, though primarily planned to be divided into instrumental and emotional support either as suggested in the research framework, can only be examined as a single variable according to the factor analysis of PSSS scale as explained earlier in Chapter 4 (refer to P. 59).** Therefore, the four kinds of social support proposed in the original research framework would have to be reduced to three, received instrumental social support (**RSS <I>**), received emotional social support (**RSS <E>**), and perceived social support (**PSS**), of which the received instrumental social support would be measured by received economic support (**RE_{co}S**) and received daily care support (**RDCS**).

Given that perceived social support would be treated as one single variable, the first three research hypotheses I want to test with the hierarchical regression analysis are correspondingly modified to be:

H₁: All three types of social support, received instrumental social support, received emotional social support, and perceived social support, have beneficial effect on the mental health of the physically disabled.

H₂: Received social support and perceived social support are not equally effective in maintaining mental health of the physically disabled when the socio-demographic variables are held constant.

H₃: Once received, instrumental social support and emotional social support are not equally effective in maintaining mental health of the physically disabled when the socio-demographic variables are held constant.

For three reasons, the frequency of contact with members in the support networks is not included in the regression analysis, although primarily proposed as an additional index to network size to measure the quantity of support received. First, the networks of the three kinds of social support are highly overlapped, that each of the network members usually carries multiple roles in providing both instrumental and emotional support. Thus the contact with supporters in a certain network is not necessarily for the sake of that kind of support, which in turn renders the frequency of contact not a proper indicator to exactly assess the quantity of that kind of support received. Second, the frequency of contact with supporters is too highly correlated with the network size as displayed in Table 5. It is better to be precluded from the regression model in order to avoid elevating the risk of multicollinearity in estimates. Third, the frequency of contact with supporters is too skewed distributed in the domain of daily care support. Over 80% of the respondents cluster in the category of having everyday contact with each supporter, which makes it almost a constant variable. It is not appropriate to be counted as a predictor in regression models under such a circumstance.

Column 2 to 5 in Table 7 (next page) presents the results of hierarchical regression analyses wherein the three types of social support, received instrumental social

Table 7 Summary of Hierarchical Regression of CES-D on Socio-Demographic and Social Support Variables (N=204)

	Basic Model	RE_{coS}	RDCS	RE_{moS}	PSS	Overall
Sex	-.006 (1.744)	-.010 (1.746)	-.007 (1.748)	-.017 (1.746)	-.017 (1.635)	-.023 (1.640)
Age	.044 (1.344)	.034 (1.358)	.044 (1.347)	.037 (1.343)	.028 (1.262)	.030 (1.268)
Marital	-.011 (2.005)	-.015 (2.008)	-.015 (2.021)	.009 (2.031)	.062 (1.919)	.061 (1.944)
Education	-.068 (.872)	-.081 (.887)	-.068 (.874)	-.061 (.870)	.000 (.832)	.017 (.855)
Lbility	-.170 (2.168)*	-.173 (2.170)*	-.169 (2.173)*	-.167 (2.161)*	-.179 (2.033)*	-.173 (2.028)*
Employ	.019 (2.145)	.018 (2.145)	.022 (2.158)	.016 (2.138)	.022 (2.011)	.037 (2.010)
Income	-.263 (.706)**	-.270 (.710)**	-.263 (.707)**	-.252 (.706)**	-.215 (.667)**	-.204 (.674)**
RE_{coS}	---	-.069 (.756)	---	---	---	.032 (.763)
RDCS	---	---	.029 (.723)	---	---	.146 (.746)*
RE_{moS}	---	---	---	-.106 (.547)	---	-.026 (.598)
PSS	---	---	---	---	-.352 (.058)***	-.398 (.065)***
ΔR²	.052	.004	.001	.010	.110	.129
Change Sig.	ΔF=11.719**	ΔF=.952	ΔF=.180	ΔF=2.372	ΔF=28.024***	ΔF=8.295***
R²	.128	.132	.129	.138	.237	.256
Model Sig.	F=4.103*** (7, 196)	F=3.708*** (8, 195)	F=3.597** (8, 195)	F=3.912*** (8, 195)	F=7.588*** (8, 195)	F=6.016*** (11, 192)

p<.05 ** p<.01 ***p<.001

support (indicated by received economic support and received daily care support separately), received emotional social support and perceived social support, were introduced to the basic model individually. It is clearly revealed that only perceived social support showed significantly strong effect on the CES-D score (Beta= -.352, p<.001) and made a significantly considerable increase in the R square over the basic model, indicating 11 percent more variance of the depression score can be explained by this support variable independent of socio-demographic variables. In contrast, none of the received social support, either instrumental or emotional, accounted for a significant variance in the depressive symptoms beyond socio-demographic variables. Introduction of each of these three support variables resulted in only trivial change in the R square, and the change is not significant.

The effect of labor ability and income kept significant in any of these equations, with little fluctuations in magnitude, but the effect of income, although remaining significant, was attenuated in a considerable part by introduction of the perceived social support, according to the decreased partial correlation coefficient between income and CES-D score (from $-.2375$ to $-.2076$). That means, the effect of income on the mental health of the physically disabled become less important when their perception of available support they may count on in situations of real needs is kept constant.

Column 6 in Table 7 presents the results of the analysis that evaluate the simultaneous effects of the multiple supports. It is easy to identify that perceived social support remains the most powerful predictor of the depression score (Beta = $-.398$, $p < .001$) among these four support variables. What's more, instead of being attenuated, the magnitude of its effect is even stronger in this model, which simultaneously examined both received and perceived social supports, than being examined individually as showed in Column 5 (Partial correlation coefficient between perceived social support score and CES-D score increased from $-.3545$ to $-.3598$). Since the significant correlation among several variables in the overall model may possibly raise the risk of multicollinearity of estimates, tolerance values were calculated to rule out the alternative interpretation. As a result, the tolerance values of each variable ranged from 0.6 to 0.9 or above, all greater than the generally adopted cutoff threshold, 0.1 (Hair, Anderson, Tatham, & Black, 1995), or a more conservative criterion, 0.2 ($VIF < 5$), indicating that the multicollinearity between predictor variables was at an acceptable level, and that the findings were not merely misled understanding. Moreover, it is easy to observe the large gap between the variance of CES-D explained by perceived social support and that of

received social support by comparing the R^2 from Column 2 to Column 5. The findings provide convincing evidence that, in this physically disabled sample, perceived social support has a strong direct effect on the CES-D score, which cannot be intervened or mediated by received social supports as demonstrated by some previous research, but even reinforced by the received social support.

With respect to the received social support, as indicated in Table 7, a very interesting finding here is that although showing no significant effect when examined individually (Beta=.029, ns), the received daily care support yields significant effect on the CES-D score (Beta=.146, $p < .05$) in the simultaneous effect model, but in a positive direction which indicates that the larger the support network, the more the depressive symptoms experienced. Specifically, only when the effect of the perceived social support was controlled can the significant effect of the received daily care support be identified. In other words, the actually received daily care support depends on the subjective perception of available support to show effect. Likely the perceived social support serves as a conditional variable, upon which the received daily care support yields a positive effect as the perception is better but exerts a negative effect as the perception is worse. Because of the counteraction of these two sides, it failed to present significance in affecting mental health without control of the perception variable, yet its effect was allowed to emerge when the perception of support was in control.

Whether or not possessing labor ability and the monthly total income keep being related to the depression score at statistically significant level, but the strength of the correlation between income and the CES-D score was further attenuated (Partial correlation coefficient between income and CES-D score decreased from -.2076 to

-1968) when all four kinds of social support were examined together. The total variance accounted for by all socio-demographic variables and social support variables increased to .256 in the overall model.

Obviously the research findings do not fully support my first hypothesis (**H₁**) that all types of social support have beneficial effect on the mental health of the physically disabled. Perceived social support did find convincing evidence in the current model that it has a strong beneficial effect and the significant effect is independent of the socio-demographic background and the received social support. However, there appears no evidence in this model that received economic support and received emotional support can alleviate depression of the disabled. Standardized Beta of these two variables is truly minute and not significant at all. While the received daily care support, the only kind of received social support that is significantly related to the mental health, showed a negative effect as contrary to my hypothesis.

With regard to hypothesis two (**H₂**), it can be safely stated that the received and perceived social support are not equally effective in predicting mental health of the physically disabled when the socio-demographic variables are held constant according to above analyses. The findings displayed in Table 7 make it very clear that perceived social support has far stronger effect on the mental health of the physically disabled than received social support. Moreover, the significant effect of perceived social support cannot be attenuated but even reinforced by received social support when they are simultaneously examined. In contrast, received social support show little or even detrimental effect on the mental health outcome, which accounts for merely a small proportion of variance in the depression score.

Given that both received instrumental support and received emotional support are not significantly correlated with mental health when being examined respectively with socio-demographic variables, it is difficult to tell from the research results whether these two kinds of received social support are equally effective in predicting mental health of the physically disabled when socio-demographic variables are held constant, as the third research hypothesis (**H₃**) suggests. Only received daily care support in received instrumental social support presents significant but negative effect when perceived social support is in control, which makes the comparison between received instrumental and emotional support of their relative effectiveness in affecting mental health not achievable here.

To further probe into the internal mechanism through which perceived social support operates to affect the health outcome, especially in relation to the operation of received social support, I performed another series of regression analyses wherein the perceived social support score was regressed on socio-demographic variables and the three kinds of received social support, in an effort to clarify the nexus between received and perceived social support in fulfilling the health-related function. Table 8 (next page) presents the picture as to how actually received social support of different kinds correlate to the subjective perception of available support.

It is fairly clear that each kind of the received social support is strongly predictive of better perception of available support, which in turn predicts better mental health status. Compared to the instrumental counterpart, the contribution of receiving emotional support is most potent, which brings about 13.2 percent of increase in the perception of support beyond socio-demographic variables, and the change is highly significant. Overall, the total variance of perceived support accounted for by the

Table 8 Summary of Hierarchical Regression of Perceived Social Support on Socio-demographic and Received Social Support Variables (N=204)

	Basic Model	RE_{coS}	RDCS	RE_{moS}	Overall
Sex	-.031 (2.000)	-.014 (1.905)	-.038 (1.914)	-.007 (1.858)	.001 (1.805)
Age	-.045 (1.542)	-.001 (1.482)	-.042 (1.475)	-.019 (1.429)	.002 (1.396)
Marital	.208 (2.300)**	.226 (2.191)**	-.174 (2.213)*	.136 (2.162)*	.153 (2.111)*
Education	.194 (1.000)**	.254 (.968)***	-.193 (.957)**	.171 (.926)*	.217 (.918)**
Lbility	-.025 (2.487)	-.012 (2.368)	-.016 (2.379)	-.038 (2.300)	-.020 (2.233)
Employ	.008 (2.460)	.015 (2.341)	.038 (2.363)	.020 (2.276)	.036 (2.212)
Income	.136 (.810)	.171 (.774)*	.133 (.774)**	.096 (.752)	.130 (.735)
RE_{coS}	---	.314 (.824)***	---	---	.199 (.822)**
RDCS	---	---	.285 (.791)***	---	.145 (.812)*
RE_{moS}	---	---	---	.376 (.583)***	.255 (.637)***
ΔR²	.115	.088	.080	.132	.186
Change Sig.	ΔF=3.625**	ΔF=21.573***	ΔF=19.246***	ΔF=34.303***	ΔF=17.142***
R²	.115	.203	.194	.247	.301
Model Sig.	F=3.625**	F=6.201***	F=5.872***	F=7.998***	F=8.307***
	(7, 196)	(8, 195)	(8, 195)	(8, 195)	(10, 193)

* p<.05 ** p<.01 ***p<.001

socio-demographic variables and all three kinds of received social support amount to 30.1 percent, in which 18.6 percent is uniquely attributed to the received social support. These results distinctly unravel the nexus between received and perceived social support that stimulates more profound thinking on the support-health relationship reported above. In view of the great contribution of received social support to the perception variable, it may be more appropriate to consider the received social support as having an indirect effect on mental health through the function of perceived social support, instead of being completely non-relevant to the psychological well-being. It is justifiable to reckon that, although showing no direct significance, the effect of received social support is, at least in part, exerted through

the operation of perceived social support.

Notwithstanding the above explanations that respond to the first three hypotheses in my research framework, which indicate that not all kinds of social support have beneficial effect on the mental health of the physically disabled and that perceived social support proves to be a far more powerful predictor of their mental health than received social support, I take into account another two possibilities that may conceal the real effect of received social support and carry out further analyses to investigate the probably veiled influences, in an effort to prevent overestimating the effectiveness of perceived social support by arbitrarily making a conclusion here.

5.3.1 Distinguishing Effects of Support Unavailability from Support of Varied Degrees

Firstly, it may be inappropriate to consider the network size as a continuous variable and assign a zero value for the support variable of the respondents who report nobody in the network. Some previous studies (Dean et al., 1989, 1990) did illustrate the necessity to distinguish the effects exhibited by the extent of received support from those by support unavailability in order to prevent obfuscating the effect of support on CES-D. Accordingly I incorporate a strategy that would differentiate between unavailability of support and varied degrees of received support in the following regression analyses, wherein I apply dummy variables to represent low support (defined by network size=1 for economic and daily care support while size=1 & 2 for emotional support), medium support (defined by network size=2 for economic and daily care support while size=3 for emotional support), and high support (defined by network size=3 or more for economic and daily care support while size=4 or more for emotional support) with unavailable acting as the reference category.

Table 9 Summary of Hierarchical Regression of CES-D on Socio-Demographic and Social Support Variables (Dummy) (N=204)

	Basic Model	RE _{coS}	RDCS	RE _{moS}	PSS	Overall
Sex	-.006 (1.744)	-.004 (1.759)	-.009 (1.751)	-.033 (1.762)	-.017 (1.635)	-.030 (1.693)
Age	.044 (1.344)	.029 (1.363)	.046 (1.341)	.024 (1.348)	.028 (1.262)	.028 (1.289)
Marital	-.011 (2.005)	-.019 (2.017)	-.024 (2.026)	.040 (2.096)	.062 (1.919)	.052 (2.049)
Education	-.068 (.872)	-.079 (.892)	-.053 (.874)	-.068 (.867)	.000 (.832)	.023 (.870)
Lbility	-.170 (2.168)	-.174 (2.172)*	-.154 (2.210)*	-.180 (2.167)*	-.179 (2.033)*	-.167 (2.105)*
Employ	.019 (2.145)	.013 (2.149)	.014 (2.155)	.028 (2.146)	.022 (2.011)	.025 (2.053)
Income	-.263 (.706)**	-.270 (.717)**	-.251 (.707)**	-.256 (.705)**	-.215 (.667)**	-.205 (.685)**
RE_{coS}_L	---	-.005 (2.380)	---	---	---	-.006 (2.419)
RE_{coS}_M	---	-.122 (2.377)	---	---	---	-.081 (2.401)
RE_{coS}_H	---	-.042 (2.732)	---	---	---	.072 (2.806)
RDCS_L	---	---	.180 (2.478)*	---	---	.154 (2.505)
RDCS_M	---	---	.074 (2.651)	---	---	.135 (2.618)
RDCS_H	---	---	.071 (2.600)	---	---	.195 (2.688)*
RE_{moS}_L	---	---	---	-.206 (2.810)	---	-.044 (2.900)
RE_{moS}_M	---	---	---	-.177 (3.447)	---	-.023 (3.742)
RE_{moS}_H	---	---	---	-.237 (3.005)*	---	-.084 (3.357)
PSS	---	---	---	---	-.352 (.058)***	-.366 (.069)***
ΔR²	.128	.012	.019	.024	.110	.141
Change Sig.	ΔF=4.103***	ΔF=.929	ΔF=1.408	ΔF=1.802	ΔF=28.024***	ΔF=3.585***
R²	.128	.140	.146	.152	.237	.269
Model Sig.	F=4.103***	F=3.148**	F=3.312**	F=3.448***	F=7.588***	F=4.021***
	(7, 196)	(10, 193)	(10, 193)	(10, 193)	(8, 195)	(17, 186)

* p<.05 ** p<.01 ***p<.001

Results of the three regression models including dummy variables (see Table 9) confirmed empirically the appropriateness of distinguishing between unavailability of support and extent of received social support. Although failed to exhibit any effect on the CES-D score, the received daily care support and emotional support did account for a significant variance when coded as dummy variables in the regression model. Column

3 in Table 9 showed that receiving low support in daily care is significantly predictive of higher depression level (Beta=.180, $p<.05$) compared to those without such kind of support. The distinction is clear between having and having no such support but not significant among varied degrees of that support received. The combination of socio-demographic variable and received daily care support accounts for 14.6 percent of the total variance in CES-D score. Similarly, column 4 in Table 9 presented the significant association between received emotional support and CES-D score. In comparison with support being unavailable, receiving high levels of emotional support significantly predicts low levels of depressive symptomatology (Beta=-.237, $p<.05$), yet receiving low or medium levels of emotional support makes no difference in the depressive experience as opposed to gaining no such support. The total variance of CES-D score explained by the received emotional support and socio-demographic variables reached 15.2 percent according to the increased R square. Worthy of noting, despite the 1.9 percent and 2.4 percent increase in R square caused by the addition of received daily care support and emotional support respectively, both of the changes did not achieve statistical significance. The effect of received economic support remains non-significant even recoded and contributes little to the variance explained by socio-demographic variables merely.

Nevertheless, when all kinds of received social support were incorporated as dummy variables with perceived social support in the overall effect regression model, the same result emerged as examined as continuous variables in Table 7. The effect of received emotional support disappeared when perceived support was introduced, while the high level of daily care support remains the only type in received social support that is significantly but positively correlated with CES-D score (Beta=.195, $p<.05$). Perceived social support still accounted for the greatest proportion of

variance in CES-D score so as to be the strongest predictor of mental health, either judged by its effect examined individually (Column 5) or collectively with received social support variables (Column 6). The total variance accounted for by both socio-demographic variables and all four kinds of social support is 26.9 percent.

I hereby suppose on above findings that, conceivably, received social support may exhibit their true effects when distinguished between support unavailability from varied degrees of support received rather than employed as continuous variables, but the revealed effects are not strong enough to attenuate the effect of perceived social support as demonstrated in both regression analyses (refer to Table 7 & 9). It is further verified that perceived social support contributes much more in predicting the mental health of the physically disabled, and part of the effects of received social support might depend on the perception of social support to be carried out (refer to Table 8).

5.3.2 Testing Effects of Moderator Variables on the Relationship between Received Social Support and Mental Health

Secondly, it is also possible that the true effect of received social support failed to emerge because the measurement of support is too crude. The size of the support network does not tap the quality of the support received and the characteristics of the support relationships, while a great many special received support effects might depend not only on the quantity of support received, but also on a complex combination of characteristics of the supports, supporters and support relationships (Wortman & Conway, 1985). To examine if it is really the case, a series of regression analyses were carried out respectively with sub-samples of respondents who reported actually obtaining economic support (N=149), daily care support

(N=163) or emotional support (N=178), wherein the effect of each kind of received social support is more specifically examined by taking other moderator variables into account. By performing the series of regression analyses, I attempt to seek answers to the fourth hypothesis in my research framework:

H₄: The effectiveness of received social support would vary with the influence of other moderator variables like the attitude of support providers, satisfaction with social support, reciprocity of support relationships, and personal agency of the support recipients.

In the regression analyses with each sub-sample, the socio-demographic variables were still positioned first to create the basic model, followed by the addition of social support variables, network size of that kind of support which represents the quantity of support received in that domain. Then the moderator variables were introduced in a set of hierarchical regression analyses, each taken alone first to test if they bring with any change in the variance of CES-D score beyond that accounted for merely by socio-demographic variables and the quantity of support, and then taken collectively to examine their conjoint effect on the depression level. At last, perceived social support score was also incorporated for the comparative sake (see Table 10-12). To test the moderating effect of these four variables, interaction terms of each kind of received social support and each moderator variable were also tried to be examined in the regression analyses but not able to be included in the regression models because of the unacceptable multicollinearity problem it resulted in. Thus the moderating effect of these variables can only be tested by investigating whether the effect of received social support change as the moderator variables were in control.

Identical to total sample analysis, the introduction of network size variable of all three kinds of received support contributed nothing to the explanation of variance in CES-D score beyond socio-demographic variables (Column 1 & 2 in Table 10-12). Seemly the level of depression experienced by the physically disabled does not vary with how many support they actually receive, be they instrumental or emotional. Moreover, the introduction of four moderator variables, attitude of supporters, satisfaction with support, reciprocity degree of support relationships, and personal agency, did not change the relationship between received social support and mental health, implying that they did not have a moderating effect in the case. Instead, they showed direct effect on mental health and made many changes in the picture of received support effect as they were added to the regression models either respectively or simultaneously. Before performing the regression analyses, tolerance values were computed for each model to test if there exists the problem of multicollinearity caused by the moderate to high correlations among several predictor variables. It is confirmed that all the models stand at an acceptable level in terms of multicollinearity in accordance with the criterion of tolerance value exceeding 0.2.

In analysis with economic support sub-sample (see Table 10 in next page), either the attitude of supporters (Beta=.179, $p<.05$) or the satisfaction with support (Beta=.263, $p<.01$) was significantly correlated with the CES-D score (Equation 3 & 4), indicating that the better the attitude of the supporters or the better the respondents feel satisfied with the support they received, the less depressive symptoms they will experience. The significant R square change resulted from these two variables was 2.9 percent and 6.4 percent respectively, implying greater variance of the CES-D score can be explained by taking into account the variables characteristic of the

Table 10 Summary of Hierarchical Regression of CES-D on Socio-Demographic, Economic Support, and Moderator Variables (N=149)

	Equation 1	Equation 2	Equation 3	Equation 4	Equation 5	Equation 6	Equation 7	Equation 8	Equation 9
Sex	-.034 (2.036)	-.034 (2.042)	-.042 (2.017)	-.013 (1.981)	-.032 (2.048)	-.045 (2.018)	-.026 (1.982)	-.025 (1.903)	-.010 (1.903)
Age	-.022 (1.509)	-.027 (1.524)	-.008 (1.512)	-.018 (1.474)	-.023 (1.533)	-.009 (1.510)	.004 (1.483)	-.008 (1.421)	-.001 (1.421)
Marital	-.030 (2.363)	-.033 (2.377)	-.002 (2.378)	-.031 (2.299)	-.025 (2.418)	-.004 (2.373)	.008 (2.383)	.019 (2.235)	.018 (2.285)
Education	.015 (1.039)	.009 (1.055)	.012 (1.042)	.050 (1.031)	.020 (1.084)	-.003 (1.043)	.041 (1.050)	.079 (.998)	.101 (1.025)
Lbility	-.197 (2.654)*	-.200 (2.667)*	-.236 (2.673)*	-.235 (2.596)*	-.195 (2.688)*	-.178 (2.648)	-.215 (2.637)*	-.182 (2.487)*	-.207 (2.528)*
Employ	-.008 (2.618)	-.008 (2.626)	.019 (2.617)	.042 (2.576)	-.007 (2.633)	-.018 (2.594)	.034 (2.569)	-.002 (2.446)	.035 (2.462)
Income	-.207 (.821)*	-.206 (.824)*	-.207 (.813)*	-.224 (.798)*	-.195 (.843)*	-.163 (.832)	-.176 (.830)	-.150 (.775)	-.165 (.796)
RE_{co}S	---	-.038 (1.093)	-.028 (1.081)	.000 (1.068)	-.023 (1.160)	-.002 (1.101)	.040 (1.138)	.063 (1.057)	.086 (1.103)
E_{co}SAT	---	---	.179 (1.248)*	---	---	---	.041 (1.433)	---	-.009 (1.390)
E_{co}SST	---	---	---	.263 (1.337)**	---	---	.233 (1.569)*	---	.214 (1.507)*
E_{co}SRC	---	---	---	---	-.051 (1.456)	---	-.027 (1.404)	---	.001 (1.351)
PA	---	---	---	---	---	-.186 (.772)*	-.174 (.754)*	---	-.030 (.808)
PSS	---	---	---	---	---	---	---	-.381 (.075)***	-.333 (.085)***
ΔR²	.103	.001 [^]	.029 [#]	.064 [#]	.002 [#]	.030 [#]	.093 [#]	.124 [#]	.040 [#]
Change Sig.	ΔF=2.307*	ΔF=.215	ΔF=4.701*	ΔF=10.729**	ΔF=.304	ΔF=4.802*	ΔF=3.918**	ΔF=22.306***	ΔF=1.828
R²	.103	.104	.133	.168	.106	.134	.197	.228	.268
Model Sig.	F=2.307*	F=2.034*	F=2.378*	F=3.126**	F=1.833	F=2.391*	F=2.775**	F=4.562***	F=3.796***
	(7, 141)	(8, 140)	(9, 139)	(9, 139)	(9, 139)	(9, 139)	(12, 136)	(9, 139)	(13, 135)

* p<.05 ** p<.01 *** p<.001

[^] The change is based on Equation 1 [#] The change is based on Equation 2 ^{**} The change is based on Equation 8

E_{co}SAT=Attitude of Supporters in Economic Support

E_{co}SST=Satisfaction with Economic Support

E_{co}SRC=Reciprocity Degree of Support Relationships in Economic Support

PA=Personal Agency in Seeking Economic Support

quality of received economic support beyond the socio-demographic background and the quantity of economic support received. This certified the critical role that the quality of support plays independent of the quantity of support in exerting effect on the mental health outcome. According to Equation 6 in Table 10, personal agency, the extent to which the disabled seek support from family members, relatives, friends, neighbors and colleagues on their own initiative, constitutes another influential factor that predicts their experience of depression (Beta=-.186, $p<.05$). The higher the personal agency, the lower the level of depression. 3 percent of the variance in CES-D was explained by this variable independently, and the change is significant ($\Delta F=4.802$, $p<.05$). Of these four moderator variables, only the reciprocity degree of support relationships in economic terms, which is measured by the number of supporters to whom the respondents can provide the same kind of support back, appeared to be non-relevant to their depression level. Introduction of this variable brings with almost no change in R square. Equation 7 presents the conjoint effect of these four moderator variables on the mental health of the physically disabled when they were examined simultaneously. Compared to Equation 2 that incorporated only socio-demographic variables and the quantity of support received, the four factors in concern together made a considerable increase in R square, which means 9.3 percent more variance in the depression score was explained additionally by the characteristics of support, supporters and support relationships. The satisfaction with economic support received proved to be the most powerful predictor of depressive symptoms among these four moderator variables (Beta=.233), followed by the personal agency in seeking economic support (Beta=-.174), and they both kept showing significant effect as being examined with all other variables in the overall model, whereas the effect of attitude disappeared on addition of other three variables. When perceived social support was added to the

model at the last step, as shown in Equation 9, the effect of personal agency disappeared either and only the perceived social support (Beta= -.333, $p<.001$) and the satisfaction with support received (Beta=.214, $p<.05$) predict the level of depression. Moreover, it is obvious that the perceived social support remains the strongest predictor. Its paramount effect can be affirmed by its unique contribution to the R square change from Equation 2 to Equation 8, 12.4 percent, which is higher than that caused by all four moderator variables collectively, 9.3 percent. In addition, compared to the figures in Equation 8, although incorporation of these moderator variables did enhance the model's power of explanation by 4 percent, the change is not significant in statistical sense. Whether or not possessing labor ability is the only socio-demographic variable that consistently showed significant effect. The effect of monthly total income was considerably reduced and become non-significant when personal agency and perceived social support was entered in Equation 6 and 8, as well as in Equation 7 and 9, the two overall models that evaluate the conjoint effect of moderator variables and/or perceived social support on the basis of socio-demographic background and quantity of received economic support. The total variance in CES-D accounted for by the socio-demographic variables, the received and perceived economic support and the four moderator variables in the final model is 26.8 percent.

Analysis with the daily care support sub-sample revealed more special effect of the received social support (see Table 11 in next page). The attitude of supporters in daily care was identified to be significantly correlated with CES-D (Beta=.182, $p<.05$) and increased the R square mildly but significantly from .098 to .128, while the satisfaction with daily care support failed to show significant effect in this case. Similar to the result in economic support, personal agency in seeking daily care

Table 11 Summary of Hierarchical Regression of CES-D on Socio-Demographic, Daily Care Support, and Moderator Variables (N=163)

	Equation 1	Equation 2	Equation 3	Equation 4	Equation 5	Equation 6	Equation 7	Equation 8	Equation 9
Sex	-.010 (2.006)	-.007 (2.009)	.024 (2.010)	-.004 (1.999)	.003 (1.994)	-.018 (1.986)	.020 (1.994)	.004 (1.852)	.028 (1.895)
Age	.049 (1.505)	.049 (1.506)	.040 (1.487)	.025 (1.523)	.059 (1.494)	.053 (1.487)	.046 (1.489)	.031 (1.389)	.031 (1.415)
Marital	-.034 (2.461)	-.034 (2.462)	-.013 (2.442)	-.019 (2.465)	-.002 (2.480)	.002 (2.473)	.051 (2.479)	.009 (2.281)	.045 (2.355)
Education	-.032 (.972)	-.027 (.975)	-.033 (.962)	-.032 (.971)	.005 (.983)	-.024 (.963)	.000 (.962)	.040 (.910)	.09 (.924)
Libility	-.169 (2.438)	-.162 (2.450)	-.182 (2.429)*	-.175 (2.448)*	-.137 (2.452)	-.169 (2.420)	-.164 (2.411)	-.172 (2.259)*	-.169 (2.290)*
Employ	-.019 (2.430)	-.029 (2.453)	-.012 (2.427)	-.018 (2.447)	-.007 (2.448)	-.027 (2.421)	.011 (2.404)	.006 (2.268)	.028 (2.286)
Income	-.195 (.796)*	-.189 (.799)*	-.204 (.790)*	-.195 (.796)*	-.192 (.792)*	-.145 (.808)	-.169 (.797)	-.150 (.739)	-.161 (.757)
RDCS	---	-.069 (.999)	-.089 (.991)	-.073 (.995)	.071 (1.337)	-.017 (1.029)	.098 (1.335)	.089 (.997)	.160 (1.282)
DCSAT	---	---	.182 (1.594)*	---	---	---	.147 (1.966)	---	.111 (1.875)
DCSST	---	---	---	.126 (1.708)	---	---	.047 (2.084)	---	.019 (1.984)
DCSRC	---	---	---	---	-.222 (1.282)*	---	-.222 (1.260)*	---	-.153 (1.212)
PA	---	---	---	---	---	-.188 (.748)	-.162 (.739)	---	-.025 (.761)
PSS	---	---	---	---	---	---	---	-.425 (.070)***	-.371 (.078)***
ΔR²	.093	.005 [#]	.031 [#]	.015 [#]	.023 [#]	.029 [#]	.078 [#]	.141 [#]	.023 [~]
Change Sig.	ΔF=2.274*	ΔF=.786	ΔF=5.386*	ΔF=2.581	ΔF=3.996*	ΔF=5.083*	ΔF=3.557**	ΔF=28.332***	ΔF=1.152
R²	.093	.098	.128	.113	.121	.127	.176	.239	.262
Model Sig.	F=2.274*	F=2.085*	F=2.505*	F=2.159*	F=2.334*	F=2.467*	F=2.668**	F=5.330***	F=4.059***
	(7, 155)	(8, 154)	(9, 153)	(9, 153)	(9, 153)	(9, 153)	(12, 150)	(9, 153)	(13, 149)

* p<.05 ** p<.01 *** p<.001

[^] The change is based on Equation 1 [#] The change is based on Equation 2 [~] The change is based on Equation 8

DCSAT=Attitude of Supporters in Daily Care Support

DCSST=Satisfaction with Daily Care Support

DCSRC=Reciprocity Degree of Support Relationships in Daily Care Support

PA=Personal Agency in Seeking Daily Care Support

support kept predictive of depressive symptoms, which brought with 2.9 percent increase in the variance explained. It was demonstrated again that to which extent the physically disabled seek support willingly from others had a significant effect on their experience of depressive symptoms. Then what worthy of special note is that, although non-relevant to the health outcome in the domain of economic support, the reciprocity degree of support relationships in daily care support plays a significant role in affecting the depressive symptoms. According to the figures reported in Equation 5, it is substantiated that the ability to reciprocate the supporters would in some way and some extent determine the depression experienced by the physically disabled who receive such support. The more chance they could provide back daily care support to whom provide with them such support, the less chance they suffer from worse depression. The variable independently accounted for 2.3 percent more variance in the CES-D score. Moreover, the reciprocity variable maintained its great significance and proved to be the most powerful predictor (Beta=-.222, $p<.05$) as being examined together with other three moderator variables in Equation 7, which evaluated the combined effect of both quantity and more complex characteristics of the received daily care support. The contribution of these four moderator variables to the variance of mental health status is totally 7.8 percent. In the final overall model which includes the perceived social support, however, none of the variables relevant to received social support remained their significance in affecting CES-D and only the perceived social support appeared to be a strong predictor (Beta= -.371, $p<.001$). Similarly, despite the 2.3 percent increase in R square from Equation 8 to Equation 9, the change is trivial and non-significant, whereas the variance in CES-D accounted for by perceived social support independently (14.1 percent) was almost double that explained by all four moderator variables collectively (7.8 percent). This provides convincing evidence for the great effect of perceived social support on the mental

health of the physically disabled. A total of 26.2 percent of variance in CES-D was explained by the socio-demographic variables, the received and perceived daily care support and the moderator variables in the last model.

With regard to the emotional domain (see Table 12 in next page), the perceived social support remained to make the greatest contribution to the variance explained in depressive symptoms, either referring to its effect as examined individually (Beta=-.389, $\Delta R^2=.129$, $p<.001$, Equation 8), or as all other factors being in control (Beta=-.391, $p<.001$, Equation 9). Yet contrary to the results of the above two, none of the moderator variables relevant to received emotional support showed any significant effect on CES-D, except that the personal agency in seeking support approached statistical significance somewhat ($P=.055$). The R square changed very little (2.8 percent) by entering all four moderator variables to the regression model (Equation 7), and their conjoint effect accounted for less than one quarter of that exhibited merely by perceived social support. Among the socio-demographic variables, labor ability and income kept significant all along in all the nine regression models. The total variance in CES-D explained by the socio-demographic variables, the received and perceived emotional support and the moderator variables is 26.8 percent.

Results of the above regression analyses with three sub-samples including moderator variables did support the fourth research hypothesis (**H₄**) in my research framework that the effectiveness of received social support would vary with the influence of other moderator variables like the attitude of support providers, satisfaction with social support, reciprocity of support relationships, and personal agency of the support recipients. It confirms a primary assumption that a great many special

Table 12 Summary of Hierarchical Regression of CES-D on Socio-Demographic, Emotional Support, and Moderator Variables (N=178)

	Equation 1	Equation 2	Equation 3	Equation 4	Equation 5	Equation 6	Equation 7	Equation 8	Equation 9
Sex	.015 (1.850)	.015 (1.854)	.017 (1.858)	.016 (1.855)	.013 (1.853)	.013 (1.840)	.012 (1.848)	.055 (1.727)	.053 (1.740)
Age	.003 (1.417)	.003 (1.421)	.004 (1.423)	-.002 (1.425)	-.007 (1.430)	.018 (1.416)	.003 (1.442)	.013 (1.316)	.000 (1.349)
Marital	.012 (2.266)	.013 (2.273)	.015 (2.277)	.006 (2.283)	.028 (2.305)	.036 (2.282)	.045 (2.351)	.013 (2.105)	.032 (2.199)
Education	-.071 (.923)	-.069 (.928)	-.059 (.940)	-.059 (.935)	-.067 (.927)	-.066 (.921)	-.056 (.936)	-.007 (.869)	-.003 (.884)
Liblity	-.216 (2.331)**	-.213 (2.348)**	-.222 (2.373)**	-.221 (2.359)**	-.201 (2.369)*	-.224 (2.334)**	-.217 (2.384)**	-.206(2.174)**	-.193 (2.234)*
Employ	.048 (2.230)	.045 (2.244)	.049 (2.251)	.046 (2.245)	.050 (2.246)	.034 (2.232)	.041 (2.250)	.023 (2.081)	.029 (2.104)
Income	-.240 (.743)**	-.237 (.749)**	-.242 (.753)**	-.238 (.749)**	-.244 (.751)**	-.208 (.755)*	-.218 (.765)*	-.171 (.702)*	-.179 (.719)*
RE_{mo}S	---	-.029 (.649)	-.036 (.655)	-.045 (.665)	.110 (1.279)	.030 (.699)	.151 (1.309)	.059 (.618)	.230 (1.232)
E_{mo}SAT	---	---	.054 (1.961)	---	---	---	.010 (2.553)	---	.007 (2.387)
E_{mo}SST	---	---	---	.073 (2.035)	---	---	.048 (2.663)	---	.005 (2.500)
E_{mo}SRC	---	---	---	---	-.165 (1.443)	---	-.162 (1.439)	---	-.201 (1.348)
PA	---	---	---	---	---	-.157 (.712)	-.146 (.724)	---	-.006 (.721)
PSS	---	---	---	---	---	---	---	-.389 (.070)***	-.391 (.076)***
Δ R²	.129	.001 [^]	.003 [#]	.005 [#]	.006 [#]	.019 [#]	.028 [#]	.129 [#]	.010 [~]
Change Sig.	Δ F=3.594**	Δ F=.161	Δ F=.544	Δ F=.951	Δ F=1.260	Δ F=3.738	Δ F=1.357	Δ F=29.113***	Δ F=.546
R²	.129	.130	.133	.135	.136	.149	.157	.258	.268
Model Sig.	F=3.594**	F=3.149**	F=2.852**	F=2.904**	F=2.944**	F=3.260**	F=2.570**	F=6.500***	F=4.619***
	(7, 170)	(8, 169)	(9, 168)	(9, 168)	(9, 168)	(9, 168)	(12, 165)	(9, 168)	(13, 164)

* p<.05 ** p<.01 *** p<.001

[^] The change is based on Equation 1 [#] The change is based on Equation 2 [~] The change is based on Equation 8

E_{mo}SAT=Attitude of Supporters in Emotional Support

E_{mo}SST=Satisfaction with Emotional Support

E_{mo}SRC=Reciprocity Degree of Support Relationships in Emotional Support

PA=Personal Agency in Seeking Emotional Support

received support effects might depend not only on the quantity of support received, but on a complex combination of characteristics of supports, supporters, support recipients and support relationships. The failure of support network size to show a significant effect on CES-D could not by itself deny the effect of received social support when other variables were considered. It has been demonstrated that the quality of received economic and daily care support, reflected by the attitude of supporters or the recipients' satisfaction with such support, did predict the level of depression. The physically disabled may experience less depressive symptoms when their supporters treat them well or they feel satisfied with the support received. The reciprocity degree of the support relationships in daily care, measured by the number of supporters to whom the respondents could provide the same kind of support back, predicts the level of depression, too. The physically disabled who receive daily care support would feel less depressed when they have more chance to reward with such support. Besides, the personal agency exhibited as the initiative to seek economic or daily care support from others also contributes a large part to the difference in their mental health status. The physically disabled tend to experience less depression by receiving these two kinds of support when they quest the support on their own initiative. Notwithstanding their significant effects on CES-D in the domains of economic and daily care support, however, the variables characteristic of the support and support relationships could not affect the depressive experience connected with emotional support. And even with the subtlest specification of received social support by taking the moderator variables into account in analyses with sub-samples, the strongest effect of perceived social support remains not being attenuated.

5.4 Theoretical and Cultural Interpretations of the Research Results

In response to the hypotheses raised by the present study, four major findings can be

summarized from above analyses, which achieve reliable answers to the following research questions: Do social support have beneficial effect on the mental health of the physically disabled? Is received or perceived social support more important for the health-related function? Is instrumental or emotional support more important for the health-related function? And do other moderator variables affect the support-health relationship?

First and foremost, perceived social support prove to be most effective in maintaining better mental health of the physically disabled. Analyses with either the total sample or the three sub-samples all present that perceived social support accounts for the greatest proportion of variance in CES-D score. Even looking very closely into the feature and content of received social support, the strongest predictive power of perceived social support keeps being not attenuated, which rules out the possibility that received social support mediate the effect of perceived social support. Instead, received social support may operate indirectly by contributing to the perception of support availability whereby affecting the psychological well-being.

Second, not all kinds of social support have beneficial effect on the mental health of the physically disabled. Among the received social support, neither instrumental nor emotional support yields significant effect on the depression level when examined individually with socio-demographic variables, measured by the size of support network that represents the quantity of support received. Even more unexpectedly, when both received and perceived social support are included simultaneously in the regression model, one dimension of received instrumental support, daily care support, presents a significant positive correlation with the CES-D score, indicating

a detrimental effect of such support on mental health (this will be explained and discussed later in more detail in 5.4.2, P. 106). The quantity of received economic support and emotional support appear to be non-relevant to the depressive symptomatology anywhere.

Third, the effect of received social support on the disabled persons' mental health depends not only on the amount of support received, but on a complex combination of other characteristics including the attitude of supporters, the satisfaction with the support, the reciprocity degree of support relationships and the personal agency in seeking support. Although showing less or negative effect on mental health as measured by quantity, the received instrumental support do account for a larger proportion of variance in depression level when being examined more specifically with the moderator variables considered in analyses with the three sub-samples. Higher satisfaction with the received economic support and more personal agency in seeking such support are documented to be associated with less depressive symptoms, that is, better mental health. Similarly, better attitude of the daily care supporters, higher reciprocal nature of the support relationships, and more personal agency in seeking daily care support, are all associated with lower depression level.

Fourth, it is difficult to tell the relative importance of received instrumental support and emotional support on the mental health of the physically disabled. None of the three network size variables presents significant effect on CES-D score when examined with socio-demographic variables in the total sample, which makes a barrier to performing such comparison. And the differences in R square to which these three kinds of social support contribute are truly too slight to determine if they are equally effective (refer to Column 2-5 in Table 7). Although showing greater

disparity in the sub-sample analyses (refer to Column 7 in Table 10-12), it is not appropriate to conclude that received economic support is the most important and emotional support is the least important merely according to the difference in R square, for the results are not based on the same respondents. Therefore, whether received instrumental or emotional support is more effective for the physically disabled to maintain mental health remains to be tested by further investigation.

The major findings summarized above on the relationship between social support and mental health are consistent with some previous research conducted in both western and Chinese contexts. However, some of the findings also point to contradictory conclusions when compared with earlier study. Imaginably the consistency might reassure the generalizability of the observed support effect by the cross-culture evidence, while the discrepancy may highlight the particularity of the operation of social support among the disabled population and within the Chinese context. Some theoretical perspectives and operational construal provided by previous research, as well as the unique cultural elements embedded in the particular society, may combine to help us better understand the complex mechanisms underlying the association between social support and mental health.

5.4.1 The Functioning of Perceived Social Support

The overwhelming significance of the perceived social support revealed by the present study is consistent with several previous research (Cohen & Hoberman, 1983; Cohen & Wills, 1985; Helgeson, 1993; Kessler & McLeod, 1985; Lakey & Heller, 1988; Wethington & Kessler, 1986) which emphasize the priority of perceived available social support over actually received social support. They provide divers clues as to how perceived support influence psychological

well-being.

A most common explanation is to interpret the operation of perceived social support as a cognitive process. Upon a study on college students, Lakey and Cassady (1990) argued that the association between perceived support and psychological distress could be accounted for by individual differences in negative cognition such as low self-esteem, dysfunctional attitudes and low control beliefs. Moreover, according to the cognitive conceptualization, support schemas may operate through influencing attention to, judgment of, and memory for support transactions. Low perceived support would bias people toward judging the supportive attempts of others as unhelpful and toward recalling fewer instances of helpful supportive behavior. It is the cognitive mediators associated with perceived social support that directly lead to psychological distress. Although the current study is not specially designed to examine the underlying cognitive mechanisms explaining how perceived support serve its function on the mental health of the disabled, the above-mentioned interpretations seem applicable for my results.

Alternatively, the perception of having access to ample support might also protect against distress by altering appraisal of the situation (Cohen & McKay, 1984). Cohen and Wills argue (1985) that the support-health association is cognitively mediated, that social support would reduce the appraised threat of a situation so as to prevent people from psychological distress aroused by relevant stress. Schwarzer and Leppin (1991) also suggest that perceived available support may play a critical role in the stress-coping process, in which it may influence both the primary appraisal, the perceived stressfulness of an event, and secondary appraisal, the perceived coping options. The perception of available support can be considered as

an additional coping option so as to provide a better balance between threat and coping, thus preventing excessive stress as well as accompanied distress. This explanation finds evidence in my study from the effect of income being mediated by the addition of perceived social support. As mentioned earlier, financial concern appears to be a major strain of the physically disabled that incurs depression. Yet the highly significant effect of income on the CES-D score is considerably reduced when the perception of support is in control in the regression model. Hereby it is conceivable that to what extent the financial situation affects depressive symptomatology depends on how adequately available support is perceived, which may well modify their appraisal of possible threats aroused by such financial situations so as to alleviate relevant depression.

A third alternative interpretation views the effect of perceived social support as mediated by actually received social support. The intervening effect of support needs counts a crucial component in the case. Individual differences in support needs may allow the same level of support receipt to be translated into different perceptions of available support. Well-being is enhanced when needs are met, so is the perception of support (Cohen & Wills, 1985; Shinn et al., 1984). That is to say, there may exist a spurious association between perceived social support and mental health, and in fact, perceived social support depends on whether the needs being met by received social support to serve the health promoting function indirectly. Besides, it is also possible that the perception of available support broaden the range of coping responses by stimulating the individual to engage in supportive transactions with others (Heller & Swindle, 1983), which are virtually responsible for the maintaining of better mental health. Obviously these explanations are not supported by the current study. There is no evidence showing that the received social support

not only exerts a direct effect but also mediate the effect of perceived social support on depression. Instead, consistent with some previous research (Wethington & Kessler, 1986), the influence of received social support proves to be mediated by perceived social support otherwise. In light of the regression model employing perceived social support as the dependent variable (see Table 8), all three kinds of received social support do contribute to the subjective perception of support, and the perception of support serves as a conditional variable for the operation of received daily care support, and as a mediate variable for the operation of economic and emotional support, as revealed by a series of regression analyses. Hereon what remains to be explained is why the perception of available support is far more effective in the health outcome of the physically disabled in contrast with the actual receipt of support behavior. Taken collectively with the interpretation of received support effect in the following part, the reason would be further explored and be better elaborated.

5.4.2 The Negative Effect of Daily Care Support

The unexpected positive association between the received daily care support and CES-D score constitutes a most noteworthy finding of this study. Indeed it is incongruent with our conventional thinking of the health-protective effect of social support to understand that receiving more support would result in an increase in depression. Yet taking the features of support and support relationships among the disabled population as well as some cultural factors into account, the result should be deemed reasonable.

First of all, an easily understood explanation for the negative effect may be that the network size of daily care support implies the demands of the disabled in this aspect,

which is usually determined by the severity of their disability. Therefore it is the severity of disability that really predicts their depression. This would suppress the estimated effect of daily care support or even distort the relationship between support and mental health, thereby leading us to misunderstand the function of such support. Since the degree of disability is not controlled in the current study, the viability of this explanation has no chance to be tested or confirmed.

Alternatively, from the perspective of the support recipients, not all support received is truly desired. It has been ever mentioned that people who receive tangible or intangible assistance do not always feel “supported” (Dowd, 1982; Lee & Ellithorpe, 1982; Palo Stoller, 1985). Receiving too much “unwanted” support may possibly do harm to the psychological well-being of the recipients, as noted by some previous studies on the chronically ill (Revenson, Wortman, & Felton, 1983), for the experience of support receipt may imply dependence and will lead them to establish a negative self-image and feel themselves incompetent, or feel being considered incompetent (Coyne & DeLongis, 1986; Coyne, Wortman, & Lehman, 1988; Kahn & Antonucci, 1980). Shinn et al. (1984) have suggested that too much support may become troublesome for people in dependent roles. This is exactly identical to the situation of the physically disabled population. In my study, the explanation finds evidenced support by examining the effect of personal agency on the reported depression. Although not directly attaining information about whether the support received is actually wanted, it was reflected at least in part by the variable of personal agency which measured the extent to which they seek such support on their own initiative, basing on the assumption that they seek the support actively just because they truly want it. The confirmed association between less agency in seeking support and higher CES-D score (see Equation 6 in Table 11) suggests the

“support unwanted” explanation viable on the observed negative effect of daily care support among the physically disabled.

In addition to the above two operational mechanisms seemingly applicable in construing the particular research finding, the following two interpretations contribute more inspiring thinking to our understanding the nature of social support and support effect within the Chinese context. One such enlightening opinion is concerned with the dual effect of social support. Despite the focus of extensive research on its health promoting function, social support is also demonstrated to be a double-edged sword in affecting psychological well-being (Tracey et al., 1991). A number of studies have suggested that not all support is necessarily beneficial, for the same individuals who provide support may also be a source of conflicted interactions that bring about tension and stress, or called “social strain” (Coyne & DeLongis, 1986; Lunsky & Benson, 2001). The negative aspects of social relationships have proven to be more robust predictors of psychological well-being than positive aspects, especially when matched with the negative affective domains of health outcome such as depression (Finch et al., 1989; Fiore, Becker, & Coppel, 1983; Lunsky & Benson, 2001; Manne & Zautra, 1989; Rook, 1984; Helgeson, 1993; Pagel & Becker, 1987; Schuster, Kessler, & Aseltine, 1990; Shinn, Lehmann, & Wong, 1984), and the finding has been testified exactly on the disabled population (Lunsky & Benson, 2001). Possibly it is the relative infrequency and unexpectedness of the negative social interactions’ occurring that make the experience more vivid and consequential. Moreover, the negative effect of problematic social interactions may counteract the positive effect of supportive interactions (Helgeson, 1993). This point of view lends me a very useful tool to explain the negative effect of daily care support observed in my study. Presumably it

is the latent negative interactions with supporters in daily care that neutralize the supportive aspects to show significant effect, or even overpower the supportive aspects to produce negative effect ultimately, depending on the control of perceived social support.

Although the current study is not specially designed to simultaneously examine the positive and negative aspects of social support and to test their independent and conjoint effect, some moderator variables introduced do partly reflect the concern in a way and the results provide evidence of the appropriateness to attribute the positive association between daily care support and increased depression to the interference of potential negative interactions. For example, sub-sample analysis found that the attitude of supporters in daily care presents a significant correlation with the reported depression (see Column 3 in Table 11). The better the respondents feel treated well by who provide them support, the less depressive symptoms they experience. And the supporter attitude is characteristic of the quality of support interactions in a sense, better attitude indicating less negative interactions. Conceivably the dual support effect explanation contributes to our understanding of the current finding. Moreover, as demonstrated earlier, only when the perceived social support was controlled did the negative effect of daily care support become significant in the total sample. Perceived social support operates as a conditional variable in the case, as I suggested, that more received daily care support would reduce psychological distress relying on a better perception of available support while increase depression on a worse perception of available support. The underlying mechanism can be further clarified here by considering the effect of negative interactions. A good perception of available support may neutralize the detrimental effect caused by problematic support or negative interactions, resulting

in a balance between the contradictory effect of positive and negative aspects involved in support behaviors. Once the perception is in control, that is, on the same perception of available support, the negative side triumphs over the positive one. That is the path by which the support functions. As for why the negative effect is identified only in daily care support, one possibility lies in the fact that, compared to the other two kinds, daily care support is connected with the most frequent contact with supporters as displayed in Table 4, which greatly enhances the chance of negative interactions accompanied with supportive behaviors.

Another illuminating insight comes from the perspective of social exchange theory. The social support process is more often considered as one kind of “social exchange” rather than as a one-way provision of assistance and care (Dowd & LaRossa, 1982; Kadushin, 1983; Lindblad-Goldberg & Dukes, 1985; Lee & Ellithorpe, 1982; Mutran & Reitzes, 1984; Nye, 1979; Pala Stoller, 1985; Shanas, 1979; Specht, 1986; Stack, 1974). Support involves costs as well as benefits to actors who engage in it (Uehara, 1990). As Mauss points out (1954), there are three layers of obligation involved in social exchange: to give, to receive, and to repay. Since the persisted principle of equity in social exchange from its very origin (Homans, 1961), specifying that the rewards gained by each participant should be proportional to his or her investments and costs, the concept of reciprocity makes a critical element in the exchange processes. It is anticipated that equity in exchanges, or reciprocity, would produce greater relationship satisfaction and determine the supportiveness of such relationships (Hatfield, Utne & Traupmann, 1979). Hereby one facet of exchange theory predicts that persons who receive aid without repaying may experience a state of indebtedness, which is perceived as aversive and can discourage further help seeking (Greenberg, 1980). A support relationship lacking

symmetric exchange of resources is not assumed to be health-beneficial. Being the dependent party in an exchange relationship is psychologically uncomfortable and costly (Lee, 1985). By the assumption the negative effect of daily care support gains another reasonable explanation, and the explanation can find more evidence from one test of moderator variable effect performed in the current study. It is showed in Equation 5 of Table 11 that the reciprocal degree of support relationships in daily care, measured by the number of network members to whom the disabled can provide support back, significantly predicts their experience of depression. Lower degree of reciprocity within the support relationships is associated with higher CES-D scores, indicating worse mental health status. Conceivably the principle of equity, or reciprocity, plays a critical role in the operation of received daily care support to affect psychological well-being.

In fact, the concept of reciprocity intrinsic in the exchange perspective is very familiar to the Chinese cultural tradition. As King notes (1992), individual behavior is regulated by the institutional norms of society and culture, and the conception of reciprocity is just the fundamental norm of social exchange behaviors in the Chinese society. Under the rules of Confucianism in the ethical natured (*lunli benwei*) society, relationship is specially emphasized and is required to establish upon exchange behaviors as a prerequisite (Liang, 1949). Repaying (*Pao*) is the very foundation of exchange behavior and social relations (Yang, 1957), or even the starting mechanism of exchange relationships (Gouldner, 1975). Nevertheless, Liang (1949) also recognized that it is the moral and ethical obligations to one's relations to others (*lun li*) rather than the economical rationality that regulates the behavior of Chinese people. The sense of obligation has a paramount function in the personal exchanges among Chinese people (Qian, 1951). Moreover, the obligation comes from the so

called *li fen* (Lao, 1972), the role requirements attached to certain positions taken by anyone who engage in the net of relations, which is determined by the particularistic social relation structure (Parsons, 1949) described by Fei (1947) as *chaxu geju*, the concentric pattern of social relations with positions measured by how close one stood in relation to the actor. It is the particularistic social relation structure that determines the objects and obligations of giving, receiving and repaying (King, 1992). Mutual supports happened within the family circle would be free of the exchange principles (Weakland, 1950). In my understanding, however, by virtue of the paramount role of obligation in the Chinese culture, personal relationship is not necessary to be established and maintained by the balance between giving and repaying, but it cannot rule out the possibility that the lopsided relationship built upon unequal exchange would bring along great psychological costs to the dependent party. In other words, the one less able to repay should maintain the relationship upheld by obligation at the cost of psychological comfort, and this is evidently true in the social support operation.

From the study on the physically disabled, we may see clearly the complex interaction among structural, cultural, behavioral and psychological factors in affecting the effect of social support on their mental health. Firstly, the kin-centered nature of their support networks presents the particularistic structure of Chinese social relations. As demonstrated earlier, 91.3% of their economic support network and 85.9% of their daily care support network are purely composed of kin. It is *ren lu*, the closeness to the actor, that determines who will provide support, especially instrumental support, in times of need. Secondly, the kin-dominant network guarantees the support provision be sustained even without equal repaying, for obligation plays a sovereign role in the inner layer of the concentric relation

structure. The proportion of reciprocal relationships in their instrumental support networks is truly small, but their support network sizes are not influenced by their ability to reciprocate. It is evidenced that support does not depend on equal repaying to be provided, but possibly operates on the ethical consciousness of obligation. Thirdly, although not necessary to be maintained by equal exchange, the lopsided support provision may be costly for the recipients psychologically, for the support receipt without repaying may generate in them a sense of indebtedness which impairs their psychological well-being. It is revealed in my analysis that more received daily care support is associated with severer depression, while those who are more able to reciprocate suffer from less depressive symptoms. In truth it is exhibited explicitly how the macro-level structural characteristics and cultural elements influence the middle-level social behavior, such as social support, and in turn contribute to the particular effect of social behavior on the micro-level psychological outcomes.

Based on the two theoretical and cultural interpretations of the received support effect, the advantage of perceived social support over received social support could be more clearly elaborated. At the level of being perceived only, the operation of social support may not only effectively evade the negative interaction with supporters unavoidably connected with the support transactions, but also free the support recipients from the feeling of being dependent generated by their indebted status within the usually unbalanced exchange relationships, which in turn constrains the production of negative effect. In other words, support being perceived is less costly for the recipients in psychological sense as opposed to once being received. Thus it is not difficult to understand why perceived social support has such a strong direct effect on the health outcome, while received social support appears to

be non-relevant or even detrimental to the mental health, as revealed by the current study. The contradictory effect of received support may make its ultimate impact on psychological well-being lie in the relative balance between the beneficial and detrimental counterparts, and one proportion of its truly existent effect may depend on how much support is cognitively perceived or function through enriching the perception of support availability. This opens to us a very fresh and promising way to understand the relationship between perceived and received social support as well as their effect on mental health.

Moreover, it points out a tentative avenue towards the work of theory construction. Resources embedded in personal support networks are also deemed as a stock of social capital (Wellman & Frank, 2001), and social capital has been demonstrated to benefit health outcomes (Campbell, Wood, & Kelly, 1999). The provision of network capital depends on the social characteristics of each network member (or alter) (Lin & Dumin, 1986) and the relational characteristics of each tie with a network member (Wellman & Wortley, 1990). Yet among the physically disabled on which my study is based, a different scene is displayed. As referred to in analysis of the basic model (see P. 78), the lack in human capital as well as the disadvantaged socio-economic status resulted from such lack is greatly responsible for the mental health of the physically disabled. It is primarily assumed that social support, as one kind of social capital, would make up for the lack in human capital so as to be beneficial for their psychological well-being. According to the research results, however, we see partly the negative effect of social capital on the mental health of the vulnerable population. It is beyond the scope of this study to fully exploit the utility of social capital theory by analyzing in more detail the potential quantity and quality of social capital embedded in the support networks of the physically disabled,

assessed by the characteristics of each network member including their sex, age, education, occupation, and income, but the inspiring attempt to link research on the relationship between social support and mental health for the vulnerable population to such a theoretical perspective would prove meaningful for the establishment of a social capital theory particularly applicable for the vulnerable populations. It reminds us to view the function of social capital more comprehensively in both positive and negative directions, especially when dealing with the vulnerable populations, which indicates a promising approach for further investigation.

5.4.3 The Ambiguous Function of Economic and Emotional Support

The current study does not support the previous research finding which suggests instrumental support to be more important than emotional support for the disabled population (Kutner, 1987). Neither does it substantiate the superiority of emotional support argued by others (Antonucci et al., 1997; Oxam et al., 1992). With the exception of daily care support, received social support as a whole seldom show significant effect on the mental health, be they instrumental or emotional. Although identified a correlation between received emotional support and CES-D score when being coded as dummy variable to distinguish the effect of support unavailability from support of varied degrees, its effect disappeared when the perceived social support was in control and proved to be the strongest predictor of mental health. Even examined more specifically by taking other moderator variables into account, the amount of received emotional support measured by network size keeps showing no relevance to the CES-D score, nor did the supporter attitude, the satisfaction with support received, the degree of reciprocity in support relationships, and the initiative to seek emotional support. This is inconsistent with some previous research that considered emotional support to be the primary component among several kinds of

social support in affecting psychological well-being (Cohen & Hoberman, 1983; House, 1981; Schaefer, Coyne, & Lazarus, 1981). Presumably the inefficacy of emotional support is due to the following three reasons.

First, it may be the result of the specific situation that the physically disabled face in the specific Chinese context. Although contradicting many western findings, my study does present similar results to some research in Chinese literature such as studies on Hong Kong elderly (Chi & Chou, 1998, 2001). It has been explained in that case that since financial strain is an all too common experience for the population, tangible help or financial support which may relieve financial strain should be more effective in avoiding depression in comparison with emotional support (Chi & Chou, 1998). With regard to the disabled population in Mainland China, the financial predicament is even more salient. Because of the deficit in resources and the deflection in resources allocation, social policy for the disabled is too limited to provide them with secure protection from financial strain, which makes a critical predictor of their mental health as revealed in my study by showing the always significant effect of income on their depression. Therefore it is very possible that their urgent need in financial domain makes emotional support ineffective in alleviating their depressive symptoms.

Second, it may be determined by the stress phase in which the physically disabled stand. It has been argued that the most effective form of social support depends on the situation-specific needs that arise (Cohen & McKay, 1984; Cohen & Wills, 1985; Cutrona, 1990). As reviewed before, Jacobson (1986) considered emotional support most helpful at the initial crisis phase when a threat is just recognized because it provides one with reassurance that others are available for help. As the crisis moves

into the transition phase characterized by confusion, informational support meet the needs best, while the deficit state, “a situation in which an individual’s life is defined by chronically excessive demands”, is best restored by the provision of instrumental assistance. The underlying idea of this explanation is that support function must match need (Tracey, 1991). As far as the current study is concerned, the physically disabled, usually has been living with the disability condition for years, can be properly defined as in the deficit state wherein emotional support counts less than instrumental support. That may constitute one reason why emotional support shows no significant effect on their mental health.

Third, it possibly because that the most effective type of social support also depends on the outcome of interest (Tracey, 1991). There appears a distinction between the health-sustaining and stress-reducing forms of social support, as Shumaker and Brownell (1984) indicate, which parallels the debate between main effect model and buffering hypothesis in the support literature (Cohen & Syme, 1985; Kessler & McLeod, 1985). Emotional support is more featured as a health-sustaining form that has a main effect on well-being reflected by promoting life satisfaction, while instrumental support is more like the stress-reducing form that buffers the effects of stress manifested by decreased depression. In the sense, emotional support may be strongly predictive of such outcomes as life satisfaction, albeit being of no significant effect on depression. Test of this explanation depends on future research which examine the health-related outcomes in life satisfaction as well as in depression.

As for the effect of economic support, no evidence is found to verify that receiving more economic support would promote mental health, but the satisfaction with

support received and personal agency in seeking economic support do predict the experience of depression. One possible explanation lies in that receiving more support does not necessarily mean the needs being met. It has been elaborated that support function must match need, and support must depend on fulfilling need to exert relevant impact. According to the data reported, the quantity of received economic support seems non-relevant to their mental health, yet whether they feel satisfied with the support is strongly predictive of CES-D score, higher satisfaction associated with less depressive symptoms. It is conceivable that at least part of their subjective satisfaction with such support would rest on the extent to which their needs are met. This anteriorly certifies the ponderance of the match between support and need as well as the need fulfillment in determining the effect of support received.

Alternatively, similar to the case in daily care, support received is not always desired by the recipients. Receiving too much “unwanted” support may possibly do harm to the psychological well-being of recipients, for the experience of support receipt will lead them to establish a negative self-image and feel themselves incompetent, or feel being considered incompetent (Coyne & DeLongis, 1986; Coyne, Wortman, & Lehman, 1988; Kahn & Antonucci, 1980). The significance of personal agency in affecting the support-health relationship in economic domain intensifies such an explanation. Although how much support they receive is not correlated with the CES-D score, how actively they request such support does predict their depressive experience, and the support sought upon an initiative base is naturally considered as desired.

The possible negative effect derived from negative interactions in the support

process is unlikely to explain the effect of economic support, for the chance of negative interactions to occur is greatly reduced by the most infrequent contact with supporters in comparison with other two kinds of received social support. But it is dangerous to deny the potential negative support effect on mental health albeit it is not displayed, for the effect may possibly be counteracted by the positive aspect of economic support which alleviate the stress aroused by financial strain. It has been consistently identified in my study that income of the physically disabled has a great impact on their psychological well-being, implying that financial concern makes a major stress of their daily living. Presumably the received economic support would ameliorate their mental health by reducing their anxiety with financial concern but fail to emerge in the research finding because of the contradictory effect of the simultaneously existent negative aspects.

Nevertheless, what remains unclear is why the degree of reciprocity in economic support relationships fails to account for some variance in the CES-D score, not in line with the norm of reciprocity in exchange perspective as embodied by the result of daily care support analysis. Given that the economic support networks of the physically disabled are distinctly kin-dominant, several other supplementary opinions in regard to exchanges among kin may be helpful for our clarifying the operation of the reciprocal norm in the family sphere. One such notable point argues that support among kin follows generalized rules of reciprocity where providers do not expect any immediate or in-kind return because they assume their relationship will continue (Sahlins, 1965). Family members will provide social support to one another despite disparities in the ability of each member to provide support at any particular point in time, for they share a past history and a potential future of support on which they may view reciprocity as a process that occurs over the entire life

course where current support might reciprocate past support or anticipate future support (Antonucci, 1990; Rook, 1987). Norms of reciprocity in families are grounded in open-ended exchanges that need not involve equal, direct, or contemporaneous transactions (Curtis, 1986; Mutran & Reitzes, 1984). In addition, reciprocity among kin is generalized not only across the life course but also across the types of services exchanged (Allan, Susan, & Sandra, 1996). When parties engaging in the exchange relationships have clearly differential abilities to provide some kinds of support and services, they can maintain balance through exchanging different types of aid (Finch & Mason, 1993). The above two conceptions emphasizing the generalized nature of the reciprocity norm within families seem applicable to the process of social support among the physically disabled in my study. The failure of reciprocal degree of support relationships in economic domain to show significant effect on the mental health is possibly due to that it is the generalized norm of reciprocity that operates in the family sphere. Although the disabling nature of the vulnerable population renders the short-term inequities less possible to be redressed in a long run, it is indeed reasonable to think that they can create a balanced relationship with their support providers through repaying with another kind of support they may afford, say, exchanging financial aid with emotional support. The substitute symmetry guarantees them maintaining the support relationship without suffering from the sense of indebtedness, therefore eliminating the potential negative effect on mental health. However, it remains to be explained by further exploration why the same rule of generalized reciprocity among kin does not appear in the domain of daily care support, which is beyond the scope of this research.

Overall, received social support show relatively mild effect on the mental health of

the physically disabled according to my research results. Combined with the aforehand mentioned effect of negative aspects of social relationships, this may be possibly due to the match between the valence of the predictor and outcome variable. Some argue that the negative aspects of social relationships are more apt to predict scores in negative affective domains such as psychological distress, whereas the positive aspects of social relationships are prone to predict scores in positive affective domains such as life satisfaction (Waltz, 1986). Received social support, no matter instrumental or emotional, should be referred to as the positive aspects of social relationships, therefore more strongly predictive of life satisfaction rather than depression. This reminds us to keep cautious in understanding the effect of received social support and points out a clear avenue for future research to examine both the positive and negative aspects in social relationships and health outcomes.

Chapter 6 Conclusion, Implication and Limitation

6.1 Conclusion

On the basis of data obtained from a representative sample of physically disabled subjects resident in Guangzhou, the south of Mainland China, the current study contributes to our knowledge about how different types of social support operate independently and interdependently on the mental health among the vulnerable population within the Chinese context. It provides reliable evidence that, given the socio-demographic variables are controlled, 1) perceived social support is most effective in maintaining mental health of the physically disabled, and the strongest predictive power is not intervened or attenuated by received social support; 2) received social support, in contrast, shows less significant or negative effect on the mental health of the physically disabled. Receiving more support in daily care was found to be associated with severer depressive symptoms, while the amount of economic and emotional support received seems non-relevant to the mental health of the physically disabled; 3) effects of received social support depend not only on the quantity of support received, but also on the complex combination of characteristics involved in the support, supporters, support recipients, and support relationships. Although displaying no significant effect on mental health according to support amount only, the satisfaction with received economic support and personal agency in seeking such support predict less depressive symptoms. Similarly, better attitude of supporters, higher degree of reciprocity in the support relationships and more personal agency in the domain of daily care support also predict better mental health status; 4) the relative effectiveness of instrumental and emotional support on the mental health of the physically disabled remains unclear in the current study. Neither instrumental nor emotional support presents significant effect when examined

individually in the total sample, while analyses performed with three sub-samples make the results incomparable for they are not based on the same respondents.

From the theoretical perspectives of social exchange and social capital and other operational explanations of support effect on mental health mentioned by earlier research, as well as the cultural elements embedded in the Chinese context, the current study provides detailed interpretations on the mechanisms by which different kinds of social support serve their health-related functions.

Firstly, the remarkable effect that perceived social support exhibit on the mental health of the physically disabled is possibly due to the fact that the health protective function of social support is cognitively mediated through influencing attention to, judgment of, and memory for support transactions or through altering the appraisal of the stressful situation. It can be considered as an additional coping option to the possible threat aroused by the situation. What's more, taken collectively with the received support effect, the marked effect of perceived social support can be more easily understood. At the level of being perceived only, the operation of social support may not only effectively evade the negative interaction with supporters connected with the support transactions, but also free the support recipients from the feeling of being dependent generated by their indebted status within the usually unbalanced exchange relationships. It saves both the substantial and psychological cost of the vulnerable population in maintaining social support networks and in experiencing the sense of indebtedness. Therefore perceived social support serves to maximize the positive effect of social support meanwhile minimize the negative side.

Secondly, the negative effect of received daily care support on the mental health of the physically disabled deserves detailed explanations in at least four directions. It is possible that the severity of disability predicts both more daily care support received and higher level of depression, which distorts our understanding of the relationship between received daily care support and mental health. It is also possible that the support actually received is not always desired, thus not necessarily beneficial to their mental health. A third possibility is that, it may be the dual effect of social support that leads the receipt of daily care support to be detrimental. The negative social interactions concomitant with social support could make a social strain for the support recipients and could be more strongly predictive of the health outcome. And finally, it may be the result of the psychological cost paid by the dependent party in the usually unbalanced support relationships, as suggested in the social exchange perspective. Reciprocity plays a critical role in the operation of social support. Despite the sovereign principle of ethical and moral obligations among kin within the Chinese context guarantees the support provision to be sustained without equal repaying in time and in kind, it does burden the support recipients psychologically as reflected by their elevated risk of depression. In light of this explanation, I get a new insight into the theory of social capital with particular concern of the vulnerable populations. Being less able to invest sufficiently in the social relationships to maintain symmetry or reciprocity, the psychological cost produced by keeping and utilizing the social capital stored in the relationships would overwhelm the positive effect of social capital, thus leading to worse mental health instead. Social capital is not necessarily beneficial for the vulnerable populations in this sense.

Thirdly, the ambiguous effect of received economic and emotional support is possibly due to the match between the valence of the predictor and outcome variable.

The positive aspects of social relationships, such as social support, tend to predict scores in positive affective domains such as life satisfaction, whereas the negative aspects of social relationships are more likely to predict scores in negative affective domains such as depression. Nevertheless, the significant effect of satisfaction with and personal agency in seeking economic support implies that the health protective function of economic support may depend on whether the support is desired or meets the need of the recipients. As far as the emotional support is concerned, it may serve a health-sustaining function, which is more relevant to the outcome variables like quality of life or life satisfaction, rather than a stress-reducing function that is usually represented by the experience of depressive symptoms.

6.2 Implication

As a first attempt to explore the effect of social support on the mental health of the physically disabled in Mainland China, the current study is expected to make some contributions to advancing our understanding of the social support operation, which would have important implications for research, policy and practice.

In response to the ongoing debates in social support literature, basing on analysis with a representative Chinese disabled sample, the current study contributes to building up knowledge on the effect of social support in the particular socio-cultural context, which makes a base of comparison for cross-cultural research. It supports some findings of western study that identifies the common function of social support in either beneficial or detrimental sense, meanwhile points out several singular phenomena that feature the support operation among the particular population and upon the particular background, both providing theory-based or cultural-relevant interpretations that greatly enrich our knowledge in the field. Besides, it employs

multi-dimensional measures of social support that tap not only the quantity and content but more specific characteristics of social support. Incorporating all the measures into analysis prove to reveal a subtler picture of the support effect among the physically disabled, which suggests a meaningful way for future study to follow and to step forward. Theoretically, it attempts to apply social exchange and social capital perspectives in explaining the effect of social support, which may initiate avenues to link social support research to systematic theories that help penetrate into the essence of support effect. Moreover, it motivates the work of developing theories especially applicable for the vulnerable populations on the basis of general theoretical principles, which may benefit research on and service for the disadvantaged.

In addition, the study also raises questions remained to be answered by further investigation, which clearly indicates the directions of future research in the area. Firstly, the current study does not measure the positive interactions and negative interactions involved in support transactions separately, nor does it measure the mental health status in both positive affective domains, such as quality of life or life satisfaction, and negative affective domains, such as depression. It examines only the positive aspects of social support and the negative domain of mental health, which makes it impossible to substantiate what argued in previous research that the negative side of social support is more strongly predictive of negative mental health outcomes, whereas the positive side is apt to predict positive outcomes. This suggests future research to examine both the positive and negative aspects in social relationships as well as in health outcomes so as to achieve more integrated picture of the social support functions. Secondly, restrained by the scope and focus of the current design, it was not able to fully exploit the utility of social capital theory by

analyzing in more detail the potential quantity and quality of social capital embedded in the social support networks of the physically disabled, assessed by the social characteristics of each network member and the relational characteristics of each tie with a network member. However, it appears to be a promising attempt to take good advantage of the network information on the theoretical perspective of social capital in exploring the association between social support and mental health of the physically disabled. And the data do yield some singular effects of social capital among the particular population as opposed to our conventional assumption. Future research could go in this way to refine the social capital theory to be especially applicable for the vulnerable populations. Thirdly, the current study focuses on the effect of informal social support of the disabled that comes from kin, friends, neighbors or workmates, but not the part of formal support provided by government or non-governmental organizations. Yet it is shown in my data that they mostly maintain a high expectation of receiving support through these formal channels especially in the financial domain, albeit gaining little in reality. Future research should study the effect of formal support, and particularly, the collaboration of formal and informal social support in promoting the mental health of the disabled population, thus leading to more effective policy formulation and implementation, and service delivery.

With regard to the findings revealed in the current study on how social support operates among the physically disabled in the Chinese context, social policy formulation and social service intervention may find a reliable reference base to develop truly effective strategies to fulfill their health protective functions. For example, it has long been advocated that social work intervention could be directed at creating a new support system, strengthening the existing one, or training

individuals in their social skills that would help them strengthen their own support systems (Gottlieb, 1985). The social support network intervention has also been defined as a specific pattern in social service for vulnerable populations in Mainland China and been considered to have many advantages (Zhang, 2002). However, without considering the effective match of social support with particular type, content, or other natures, service delivery designed in a general way is not necessarily beneficial to people consuming these services. It is at this juncture that research on the effect of social support may provide very specific and valuable guidelines for the design and operation of social support intervention. As far as the current study is concerned, the overwhelming effect of perceived social support than that received deserves our primary attention. The fact suggests that it is necessary to promote and intensify the perception of support availability in service delivery, in addition to providing tangible support. It is the sense of being secured derived from a favorable perception that actually enhances the well-being. Second, in view that more support in particular domain is associated with worse mental health possibly because the negative interactions with supporters concomitant with support transactions, service should put an effort on social skills training for both support providers and recipients, to avoid creating negative interactions, to decrease the occurrence of negative support, and to deal with the problematic relationships if they emerge. Third, support providers should also be trained to be sensitive to the needs of the physically disabled in order that what they provide truly meet what the disabled need and want. The result of my study reveals that whether the needs being met by corresponding support and whether the support provided being desired are both determinants of their mental health. Need assessment must be carried out before support provision is planned. Fourth, from the standpoint of empowerment, social service intervention should also encourage the disabled to engage more in the

exchange processes among their support systems, through which they alleviate the sense of indebtedness in the dependent role that may incur depression. Service may provide both tangible and psychological resources that enable the disabled to actively involve in exchanges leading to higher self-esteem and self-confidence (Walster et al., 1978; Rook, 1987). In such way, reciprocity can also be achieved so that all parties involved will perceive that other people are doing the best they can to maintain a balanced relationship within the constraints of their abilities (Allan, Susan, & Sandra, 1996). In addition, it is also expected to create for them other situations in which they can reduce the feeling of dependency and improve the sense of worthiness through the experience of helping others. The development of self-help groups may provide such a promising way. It is shown in my data that almost none of the physically disabled has ever participated in or heard of self-help groups. An effort in practice to facilitate organizing self-help groups, which have been demonstrated to function well for cancer patients in Mainland China (Chen, 2001; Zhang, 2001), should be taken for enhancing the well-being of the disabled population.

With regard to the role of government, it may concentrate on providing a suitable environment for the disadvantaged population through exerting its administrative power. On the one hand, social policy formulation should place particular emphasis on matching benefits with the exact needs of the disabled in accordance with the research results. Policy should acknowledge the special demands of the disabled in coping with their functional limitations but prevent them from assuming a dependent role which may lead them to worse mental health. Furthermore, the focus of social policy could not be confined to the vulnerable population per se, but cast an eye at the support providers who in a great part determine how the disabled may benefit

from the support they afford. At a more ideological level, the positive attitude towards the disabled reflected in social policy may lead to more favorable public opinions on the disabled, which may in turn free them from being stigmatized in receiving and mobilizing adequate support resources. On the other hand, although informal support networks are more preferable in China, it is the domain of government to play a more significant role in mobilizing and reallocating resources to strengthen the power of informal support networks. The “personal community networks” proposed by Wellman (1999) proves a useful conception in this case. By means of integrating resources embedded in traditional communities to its substitute, the micro-level personal community networks, as Wellman indicates, government can serve as a potent backup force of the informal support networks, which not only enhances the strength of the networks of the disabled but also facilitates their access to more ample resources at their convenience. By such intervention the government could do its best to fulfill the health promoting function for the vulnerable population.

Moreover, for the sake of strengthening support systems for the physically disabled and enhancing their psychological well-being, social work intervention at the community level becomes particularly significant as the conjecture between micro-level practice and macro-level policy. It is in great need of community social workers to take the role of an advocate, claiming for and responding to the policy orientation that leads to positive attitudes towards the disabled, as well as the role of enabler, encouraging the disabled to reduce self-blame and raise consciousness, to build up the sense of self-efficacy and confidence, to gain necessary knowledge and skills for critical thinking, and to take appropriate actions for changing public attitudes and improving their living environment. In addition, community social

workers are expected to organize resources within the independent “personal community networks” into collective stocks of community social capital, which may contribute to constructing a “caring community” that serves the vulnerable populations more extensively and effectively. The empowerment practice model that emphasizes consciousness-raising, confidence-building and community-organizing (Parsons, Gutierrez, & Cox, 1998) seems highly appropriate and feasible to apply in social service intervention for the disabled population.

6.3 Limitation

In making the conclusions and discussing the implications, several limitations inherent in the present study should be pointed out to avoid the unilateral understanding of the current findings. Firstly, the cross-sectional design of the present study makes it impossible to assure the causal relationship between social support and mental health, for it cannot rule out the possibility that lower psychological well-being determines the quantity and quality of social support received by the physically disabled rather than vice versa. This alternative interpretation suggests that people with lower mental health may somehow alienate others or evade support interactions, thus in particular difficulty to maintain an extensive support network or maintain a good perception of available support. Therefore, longitudinal design providing prospective data should be preferred in future research to allow a time-linked examination of the covariation. Secondly, there may exist other variables not included in my consideration that threatens the authenticity of the support-health association. For example, personality characteristics of the physically disabled may play a significant role in their developing social support networks, in their perception of support availability, and in their maintenance and mobilization of social support (Heller & Swindle, 1983).

Such possibility might induce a reverse logic of support-health relationship just opposite to my assumption. In addition, the personality characteristic per se may determine their mental health status directly. Thus the association between social support and mental health revealed in the current study may be just spurious, while they both are only the results of personality factors. Future study incorporating these factors is expected to further clarify the relationships through a quasi-experimental, if not experimental design. Thirdly, the unitary quantitative design of the current study may preclude from access to more ample and valuable information derived from the expressions and interpretations of the physically disabled themselves of their real experience of social support. It is anticipated to achieve more vivid understanding of the operation and function of social support by future research that employs triangulation in data collection and data analysis, allowing qualitative descriptions to serve as valuable complements to pure quantitative numbers.

People living with disability conditions are typically considered among the most vulnerable populations, for whom social support does play a critical role in maintaining their psychological well-being. Research on the effect of social support on the mental health of the physically disabled is bound to benefit them through facilitating social policy modification and social service intervention to achieve higher effectiveness and efficiency. As an initial attempt to link social support research to the disabled population in Mainland China, the current study would encourage future investigations to pay more attention to the socially disadvantaged population, to address their plight, to understand their needs, and to find out ways that may effectively enhance their well-being. It is also expected to build up knowledge in the field of social support and mental health research through providing evidence of the operation of social support among the particular population, and within the Chinese context.

Appendix I: Questionnaire (English)

**Survey on
Social Support and Mental Health of the
Physically Disabled**

August 2002

Social Support and Mental Health of the Physically Disabled

(Questionnaire)

Name:

Case Number:

Address:

Interview Time:

Interview Address:

To the Respondent

Dear friend,

With the integrative progress and development of our society, social welfare is appealing to more and more attention of government and other social sections, in which social welfare for people with disability makes a significant part of the course. Given social support was documented to be influential on the health status of the disabled people, it is really of great importance to investigate social support of the disabled as well as its relationship to their mental health, for the formulation and implementation of effective policies and strategies that facilitate enhancing their well-being. This is the very reason why we conduct this survey on social support and mental health of the physically disabled. According to probability sampling, we draw out 200 people with physical disability from the entire disabled population recorded by the Disabled Persons' Federation to participate in our investigation, and you are just one of them. The information you provide will be representative of this population and reflect the social support and mental health of the physically disabled in the city. Therefore, we are eager for your cooperation and trust you will answer all the questions in the questionnaire genuinely and accurately.

We promise that all information gathered is only for analytical use and will not be published separately. Please be free of any worry.

Thanks very much for your cooperation and support!

Department of Sociology
Zhongshan University
August 2002

Declaration of the Investigator

I declare that I have accurately recorded answers of the interviewee to all the questions in the questionnaire in accordance with the requirements of the principal of this project.

Signature of Investigator:

I. Basic Information about Respondent and Family Members

Please provide basic information about yourself

1. Sex: () 1. Male () 2. Female

2. Age: () Years

3. Place of Birth:

() 1. Native to the City () 2. Other Large Cities () 3. Middle City

() 4. Small Town () 5. Countryside

How long have you been in the city if you are not native here: _____ Years

4. Health Status: () 1. Born with Disability () 2. Disabled after Birth

If your choice is 2, please tell your age of being disabled: () Years

5. Education:

() 1. Illiterate () 2. Elementary School () 3. Junior Middle School

() 4. High School () 5. Vocational School () 6. Technical School

() 7. Vocational College () 8. Junior College () 9. University or above

6. Do you have labor ability: () 1. Yes () 2. No

7. Employment Status (If you have labor ability):

() 1. Fully Employed () 2. Partly Employed () 3. Unemployed

() 4. Retired Formally () 5. Retired for Health Problems

() 6. Self-Employed () 7. Student () 8. Others (Please specify)

8. Job (if being currently employed): _____

9. Do you hold a certain kind of technique: () 1. Yes () 2. No

10. Monthly Total Income: _____ Yuan (RMB), in which Wage: _____ Yuan

Bonus: _____ Yuan, Subsidy: _____ Yuan, Support from Kin and

Friends: _____ Yuan, Others: _____ Yuan (Please specify)

11. Do you feel the income enough for you to make a living?

() 1. Enough () 2. A Little Short () 3. Deficient

() 4. Very Deficient

12. Religious Affiliation:

() 1. None () 2. Buddhism () 3. Taoism () 4. Islamism

() 5. Christianity () 6. Catholicism () 7. Others (Please specify)

13. Marital Status:

- () 1. Single () 2. Married () 3. Unmarried after Divorce
- () 4. Remarried after Divorce () 5. Unmarried after Bereavement
- () 6. Remarried after Bereavement

14. Please provide the basic information of your parents, when you were 18 years old

	Education	Occupation	Health	Religion	Income (Yuan/Year)
Father					
Mother					

15. How many people are you living with currently and sharing the income and consumption together? _____ What are their relationships to you? Please provide the following information about them in the table below (Please enter as many as applicable).

Title	Sex	Age	Health	Education	Occupation	Income (Yuan/Year)
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

II. Social Support of Respondent

16. Usually from whom do you get economic support when you are in need? Please provide the following information about them in the table below (Please enter as many as applicable).

Supporter	Relationship ^a	Sex	Age	Health ^b	Education ^c	Occupation
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

Supporter	Frequency of contact with him/her ^d	Attitude to provide support ^e	Do you provide support back	Do you desire to get his/her support	Are you satisfied with his/her support ^f	Who is he/she familiar with
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

17. Usually from whom do you get daily care support (e.g., moving, house keeping, baby sitting) when you are in need? Please provide the following information about them in the table below (Please enter as many as applicable).

Supporter	Relationship ^a	Sex	Age	Health ^b	Education ^c	Occupation
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

Supporter	Frequency of contact with him/her ^d	Attitude to provide support ^e	Do you provide support back	Do you desire to get his/her support	Are you satisfied with his/her support ^f	Who is he/she familiar with
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

18. Usually from whom do you get emotional support (e.g., discussing problems, sharing experiences, confiding worries) when you are in need? Please provide the following information about them in the table below (Please enter as many as applicable).

Supporter	Relationship ^a	Sex	Age	Health ^b	Education ^c	Occupation
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

Supporter	Frequency of contact with him/her ^d	Attitude to provide support ^e	Do you provide support back	Do you desire to get his/her support	Are you satisfied with his/her support ^f	Who is he/she familiar with
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

19. Have you received economic support, daily care support, or emotional support from the following institutions? (Please tick in the blank as applicable)

Institutions	Economic Support	Daily Care Support	Emotional Support
1. Civil Affaires Bureau			
2. Disabled Persons' Federation			
3. Residents' Committee			
4. Self-help Groups			
5. Religious Groups			
6. Community Service Center			
7. Others (please specify)			

20. Will you seek support from the following persons or institutions forwardly when you need help (Please tick in the blank as applicable)

	1.	2.	3.	4.	5.	6.
	Family	Relatives	Friends	Workmates	Neighbors	Civil Affairs Bureau
Yes						
No						
Not Sure						

	7.	8.	9.	10.	11.	12.
	Disabled Persons' Federation	Residents' Committee	Self-help Groups	Religious Groups	Community Service Center	Others (please specify)
Yes						
No						
Not Sure						

21. Do you think who is responsible for providing with you economic support, daily care support, and emotional support? (Please tick in the blank as applicable)

	1.	2.	3.	4.	5.	6.
	Family	Relatives	Friends	Workmates	Neighbors	Civil Affairs Bureau
Economic Support						
Daily Care Support						
Emotional Support						

	7.	8.	9.	10.	11.	12.
	Disabled Persons' Federation	Residents' Committee	Self-help Groups	Religious Groups	Community Service Center	Others (please specify)
Economic Support						
Daily Care Support						
Emotional Support						

22. From which of above sources do you hope to get more support?

23. There are fourteen statements in the table below, each followed with seven answers. Please read each statement carefully and indicate how you feel about each statement. Circle the 1 if you Very Strongly Disagree. Circle the 2 if you Strongly Disagree. Circle the 3 if _____ you Mildly Disagree. Circle the

4 if you are Neutral. Circle the 5 if you Mildly Agree. Circle the 6 if you Strongly Agree. Circle the 7 if you Very Strongly Agree.

	Very Strongly Disagree	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree	Very Strongly Agree
1. There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2. There is a special person with whom I can share joys and sorrows.	1	2	3	4	5	6	7
3. My family really tries to help me.	1	2	3	4	5	6	7
4. I get the emotional help and support I need from my family.	1	2	3	4	5	6	7
5. I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6. My friends really try to help me.	1	2	3	4	5	6	7
7. There is someone who will help if I need economic support	1	2	3	4	5	6	7
8. I can count on my friends when things go wrong.	1	2	3	4	5	6	7
9. I can talk about my problems with my family.	1	2	3	4	5	6	7
10. I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
11. There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7

12. My family is willing to help me make decisions.	1	2	3	4	5	6	7
13. I can talk about my problems with my friends.	1	2	3	4	5	6	7
14. There is someone who will help if I need daily care support.	1	2	3	4	5	6	7

III. Mental Health of Respondent

24. There are twenty statements in the table below, each followed with four answers.

Please read each statement carefully and circle the number for each statement which best describes how often you felt or behaved this way—DURING THE PAST WEEK.

DURING THE PAST WEEK:	Rarely or None of the Time (Less than 1 Day)	Some or a Little of the Time (1-2 Days)	Occasionally or a Moderate Amount of the Time (3-4 Days)	Most or All of the Time (5-7 Days)
1. I was bothered by things that usually don't bother me.	0	1	2	3
2. I did not feel like eating; my appetite was poor.	0	1	2	3
3. I felt that I could not shake off the blues even with help from my family or friends.	0	1	2	3
4. I felt that I was just as good as other people.	0	1	2	3

5. I had trouble keeping my mind on what I was doing.	0	1	2	3
6. I felt depressed.	0	1	2	3
7. I felt that everything I did was an effort.	0	1	2	3
8. I felt hopeful about the future.	0	1	2	3
9. I thought my life had been a failure.	0	1	2	3
10. I felt fearful.	0	1	2	3
11. My sleep was restless.	0	1	2	3
12. I was happy.	0	1	2	3
13. I talked less than usual.	0	1	2	3
14. I felt lonely.	0	1	2	3
15. People were unfriendly.	0	1	2	3
16. I enjoyed life.	0	1	2	3
17. I had crying spells.	0	1	2	3
18. I felt sad.	0	1	2	3
19. I felt that people disliked me.	0	1	2	3
20. I could not get "going".	0	1	2	3

Thanks very much for your cooperation! Would you please leave you telephone number for further contact? _____

Options for Question 16-18.

a. Relationship:

1. Family Member 2. Relative 3. Friend
 4. Workmate 5. Neighbor 6. Others (please specify)

b. Health:

1. Healthy 2. Not ill 3. Chronically ill 4. Disabled

c. Education:

1. Illiterate 2. Elementary School 3. Junior Middle School
 4. High School 5. Vocational School 6. Technical School
 7. Vocational College 8. Junior College 9. University or above

d. Frequency of Contact with Him/Her:

1. Everyday 2. Several Times/Week 3. 1-2 Times/Week
 4. Several Times/Month 5. 1-2 Times/Month
 6. Less than Once A Month

e. Attitude to Provide Support:

1. Very Willing 2. Willing 3. Neutral
 4. Unwilling 5. Very Unwilling

f. Are You Satisfied with His/Her Support:

1. Very Satisfied 2. Satisfied 3. Neutral
 4. Unsatisfied 5. Very Unsatisfied

Appendix II: Questionnaire (Chinese)

社會支持與殘障人士精神健康調查問卷

二零零二年八月

社會支持與殘障人士精神健康調查問卷

被訪人姓名： _____ 個案編號： _____
被訪人地址： _____ 市 _____ 區 _____ 街 _____ 號
訪問時間： _____ 年 _____ 月 _____ 日 _____ 時 _____ 分至 _____ 時 _____ 分
訪問地點： _____

致 被 訪 人

朋友：您好！

近年來，隨著社會的整體進步與發展，社會福利也越來越多地受到政府及社會各界的關注，其中，殘障人士是福利工作的重要對象，而社會支持對殘障人士的健康狀況有顯著影響。瞭解殘障人士所擁有的社會支持，探討它與精神健康之間的關係，對於政府和其他工作部門制定相關政策，採取有效措施改善殘障人士的生活處境，提升其身心健康狀況都具有十分重要的意義。我們正在進行的“社會支持與殘障人士精神健康調查”就是為此目的而進行的。按照隨機抽樣的科學方法，我們從本市殘聯在錄的全部殘障人士中抽取了 200 人進行訪問調查，您就是被抽中的一位。您所提供的有關信息，將作為這一群體的代表，反映本市殘障人士的社會支持與精神健康狀況。因此，我們懇切希望得到您的合作，相信您一定會根據自己的實際情況及看法，如實準確地回答問卷中的問題。

所有關於個人和家庭的資料只作匯總分析使用，絕對不單獨公開發表，請您不必有任何顧慮。

衷心感謝您的合作與支持！

中山大學社會學系
二零零二年八月

調 查 員 聲 明

本人保證按照調查項目負責人的要求，就本問卷中的全部問題逐個向被調查人進行了詢問並如實作了記錄。

調查員簽名： _____

-
1. (調查員記錄) 被訪人性別：() 1、男 () 2、女
 2. 請問您的年齡：() 歲
 3. 請問您的出生地：
() 1、本市 () 2、其他大城市 () 3、中小城市
() 4、小城鎮 () 5、鄉村

如果您是遷入本市，請問您遷入有多久：----- 年

4. 請問您的身體狀況是屬於: () 1、先天殘疾 () 2、後天致殘
如果選擇 2, 請問當時您的年齡是 () 歲
5. 請問您的受教育情況:
() 1、小學以下 () 2、小學 () 3、初中 () 4、高中
() 5、職高 () 6、中專、技校 () 7、職大/電大
() 8、大專 () 9、大學本科及以上
6. 請問您是否有勞動能力: () 1、有 () 2、無
7. 如果有, 請問您的就業狀況:
() 1、全職就業 () 2、半職就業 () 3、下崗/失業/待業
() 4、離退休 () 5、病傷休 () 6、私營個體業主
() 7、在學 () 8、其他(請具體說明)
8. 如果現在在業或部分參與工作的話, 請問您的具體工作是什麼? _____
9. 您是否掌握著一門工作手藝:() 1、是 () 2、否
10. 請問您的收入水平: 各種收入都計算在內, 您每月的總收入大約有-----元;
其中, 工資_____元, 獎金_____元, 政府津貼_____元, 親友資助_____元,
其他_____元(請具體說明)
11. 您感覺您的收入是否足夠應付生活開支:
() 1、足夠 () 2、手頭有點緊 () 3、不夠 () 4、很不夠
12. 您有宗教信仰嗎:
() 1、無宗教信仰 () 2、佛教 () 3、道教 () 4、伊斯蘭教
() 5、基督教 () 6、天主教 () 7、其他宗教(請具體說明)
13. 您的婚姻狀況怎樣:
() 1、未婚 () 2、第一次結婚至今 () 3、離異未再婚
() 4、離異後再婚 () 5、喪偶未再婚 () 6、喪偶後再婚
14. 在您十八歲的時候, 您父母的以下情況怎樣?

	教育水平	具體職業	健康狀況	宗教信仰	年收入(元/年)
父親					
母親					

15. 現時與您居住在一起並共享收入和消費的有幾人:-----他們分別是您的什麼人?
有關情況如何?

稱謂	性別	年齡	健康狀況	教育水平	具體職業	年收入(元/年)
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

16. 當您需要經濟資助的時候,通常哪些人向您提供這類資助?他們的有關情況如何?

支持者	與您的關係:①家人 ②親戚 ③朋友 ④同事 ⑤鄰居 ⑥其他(注明)	性別	年齡	是否殘疾人	教育水平	具體職業
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

支持者	與您聯繫的頻度	對您支持的態度	您是否也向他/她提供支持	您是否希望得到他/她的經濟資助	您對其支持是否滿意	他/她與誰相熟識
1						
2						
3						
4						
5						

6						
7						
8						
9						
10						

17. 當您需要生活照顧（如：日常起居、行動、處理家務、照看孩子等）的時候，通常哪些人向您提供這類幫助？他們的有關情況如何？

支持者	與您的關係：①家人 ②親戚 ③朋友 ④同事 ⑤鄰居 ⑥其他（注明）	性別	年齡	是否殘疾人	教育水平	具體職業
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

支持者	與您聯繫的頻度	對您支持的態度	您是否也向他/她提供支持	您是否希望得到他/她的經濟資助	您對其支持是否滿意	他/她與誰相熟識
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

18. 當您需要情感支持（如：討論問題、分享經驗、傾訴煩惱等）的時候，通常哪些人向您提供這類支持？他們的有關情況如何？

支持者	與您的關係：①家人 ②親戚 ③朋友 ④同事 ⑤鄰居 ⑥其他（注明）	性別	年齡	是否殘疾人	教育水平	具體職業
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

支持者	與您聯繫的頻度	對您支持的態度	您是否也向他/她提供支持	您是否希望得到他/她的經濟資助	您對其支持是否滿意	他/她與誰相熟識
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

19. 您有沒有從以下部門或公共機構得到過經濟資助、生活照顧或情感支持？（請在相應的空格內劃勾）

政府部門/公共機構	經濟資助	生活照顧	情感支持
1、民政局			
2、殘疾人聯合會			
3、街道居民委員會			
4、殘疾人自助團體			
5、宗教團體			
6、社區服務中心			
7、其他（請具體說明）			

20. 在您遇到困難的時候，您會不會主動向以下有關的個人、部門或公共機構尋求幫助？請在相應的空格內劃勾：

	1·	2·	3·	4·	5·	6·	7·	8·	9·	10·	11·	12·
	家人	親戚	朋友	同事	鄰居	民政局	殘疾人聯合會	街道居民委員會	殘疾人自助團體	宗教團體	社區服務中心	其他 (請具體說明)
會												
不會												
不知道	-----	----	----	----	----							

21. 您認為誰應該承擔主要的向您提供經濟資助、生活照顧或情感支持的責任？請在相應的空格內劃勾：

	1·	2·	3·	4·	5·	6·	7·	8·	9·	10·	11·	12·
	家人	親戚	朋友	同事	鄰居	民政局	殘疾人聯合會	街道居民委員會	殘疾人自助團體	宗教團體	社區服務中心	其他 (請具體說明)
經濟資助												
生活照顧												
情感支持	-----	----	----	----	----							

22. 您希望從上述哪些方面得到更多的支持：

23. 以下有 14 個句子，每一個句子後面各有 7 個答案。請您根據自己的實際情況在每句後面選擇一個答案。例如，選擇①表示您極不同意，即說明您的實際情況與這一句子極不相符；選擇⑦表示您極同意，即說明您的實際情況與這一句子極相符；選擇④表示中間狀態，餘類推。

	①極不同意	②很不同意	③稍不同意	④中立	⑤稍同意	⑥很同意	⑦極同意
1. 在我遇到問題時有些人(親戚、同事、朋友等)會出現在我的身旁	1	2	3	4	5	6	7
2. 我能夠與有些人(親戚、同事、朋友等)共用快樂與憂傷	1	2	3	4	5	6	7
3. 我的家庭能夠切實具體地給我幫助	1	2	3	4	5	6	7
4. 在需要時我能夠從家庭獲得感情上的幫助和支持	1	2	3	4	5	6	7
5. 當我有困難時有些人(親戚、同事、朋友等)是安慰我的真正源泉	1	2	3	4	5	6	7
6. 我的朋友們能真正幫助我	1	2	3	4	5	6	7
7. 在需要時有人會向我提供經濟資助	1	2	3	4	5	6	7
8. 發生困難時我可以依靠我的朋友們	1	2	3	4	5	6	7
9. 我能與自己的家庭談論我的難題	1	2	3	4	5	6	7
10. 我的朋友們能與我分享快樂和憂傷	1	2	3	4	5	6	7
11. 在我的生活中有些人(親戚、同事、朋友等)關心著我的感情	1	2	3	4	5	6	7
12. 我的家庭能心甘情願協助我做出各種決定	1	2	3	4	5	6	7
13. 我能與朋友們討論自己的難題	1	2	3	4	5	6	7
14. 在需要時有人會向我提供生活照顧	1	2	3	4	5	6	7

24. 下表是對您可能存在的或最近有過的感受的描述，請告訴我最近一周來您出現這種感受的頻度，請在每一陳述相應的空格內標明您的選擇：

感 受	1 偶爾或無 (少於一天)	2 有時 (1-2 天)	3 時常或 一半時間 (3-4 天)	4 多數時間 (5-7 天)
1. 一些通常並不困擾我的事使我心煩				
2. 我不想吃東西；我胃口不好				
3. 我覺得即使有愛人或朋友幫助也無法擺脫這種苦悶				
4. 我感覺同別人一樣好				
5. 我很難集中精力做事				
6. 我感到壓抑				
7. 我感到做什麼事都很吃力				
8. 我覺得未來有希望				
9. 我認為我的生活一無是處				
10. 我感到恐懼				
11. 我睡覺不解乏				
12. 我很幸福				
13. 我比平時話少了				
14. 我感到孤獨				
15. 人們對我不友好				
16. 我生活快樂				
17. 我曾經放聲痛哭				
18. 我感到憂愁				
19. 我覺得別人厭惡我				
20. 我沒有動力				

感謝您的合作，請問可否留下您的聯繫電話？_____

附注：16-18 題部分問題選項

1. 教育水平

- 1、小學以下 2、小學 3、初中 4、高中
 5、職高 6、中專、技校 7、職大/電大
 8、大專 9、大學本科及以上

2. 与您聯系的頻度

- 1、每天都有聯系 2、每周多次 3、每周一兩次
 4、每月多次 5、每月一兩次 6、几月一次或更少

3. 對您支持的態度

- 1、很樂意 2、比較樂意 3、一般
 4、不太樂意 5、很不樂意

4. 您對其支持是否滿意

- 1、很滿意 2、比較滿意 3、一般
 4、不太滿意 5、很不滿意

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