

CHAPTER - I

THE PROBLEM

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CHAPTER - I

THE PROBLEM

1.1 Introduction to the General Problems of Disability.

Throughout the recorded history and probably before, man has been intrigued by the possibilities that the outward characteristics of physique might in some way be a guide to the inner nature of man, to his temperament and his personality. Thus, it is generally believed that a person's body influences his behaviour by way of the many phenomenal properties it has for him and his associates and by way of greater or lesser efficiency.

The deformities, disabilities and imperfections of the human bodies such as lameness, deafness, blindness, be they innate or accidental, torture the recipient to a considerable extent.

Curiously enough, while recognition that physical disability may play an important part in the psychological life of an individual seem to be universal, still no scientific interest was shown in studying the psychological aspects of disability for a long time. One of the possible reasons behind the lack of interest might be due to the belief that if a person loses an arm or leg he or she can do nothing about it but to resign himself to an unhappy fate. Thus, for instance,

Walman (1977) remarks: "As dim as his future may be, it cannot be overcome, it must simply be endured". There were no efforts made to rehabilitate the disabled individual. It is only very recently that this aspect of rehabilitating the disabled individual is gaining higher priority with the recognition that most people are at some time forced, either directly or indirectly to meet the challenges of physical disability.

The professionals understand disability from the point of view of natural sciences. Sciences like physics, chemistry and biology ushered in great benefits for mankind. The methods of natural sciences brought progress in conquering infectious diseases, generating low-cost energy in quantities undreamed of until recently and brought about the progress that everyone welcomed. Of course, there remained still many unsolved problems like poverty, urban overcrowding, the depoliation of the natural environment and the social alienation of the disabled persons. But these had to await their turn for greater scientific advancement as well as greater maturity and integration of goals and values governing scientific research and its application to life.

Researches have shown that depression following trauma, hostility and the phantom experiences of the physically handicapped were psychopathologies (Shontz, 1970; Dembo, 1948, Walman 1977) and these could be treated like any other disease.

An individually oriented psychology blithely ignored the social contact of behaviour and the existential experiences of the patients. For instance, disability is still viewed primarily by the professionals as an individual problem to be overcome by the 'just-right attitude' and motivation of the disabled person himself (Stubbins 1977). There has rarely been anyone on the scene to help to transform the problem of disability from its individual nature to a social one. Personal depreciation resulting from disability belongs, so to speak, to no man's land located between the disciplines and professions of the rehabilitation team.

A question which often comes up in the mind of some people is whether "disability" really poses a problem, even if a minor one, to be anticipated in each individual case. If it is minor it may present no serious difficulty, however it may still be possible that the disabled might view his condition in terms of personal prejudices, which may lead to more problems of adjustment. In this regard Fitzsimmons (1943) commented:

"The individual with a permanent physical handicap carries a constant emotional burden. The patient shows his conflict over dependency sooner and his adjustment takes longer than that of the average ill person..... Excessive dependency is seen when the person becomes unable to bear the added strain of physical handicaps, swings to one extreme or the other.....helplessness or over dependence," (P.324).

Whereas much knowledge has been gained about the anatomy and physiology of human body, the psychological aspects of the disabled-body have remained considerably unexplored and there is no single theory to explain the psychological responses to physical handicap or disability. The present study was undertaken to investigate some of the factors in crisis experience and the consequent adjustmental problems faced by the disabled.

1.2 Historical Emergence of the Problem

The problem of the physically handicapped is as old as human life itself. From time immemorial, man has been struggling against the revages wrought by disease, accident illness or war. It was only after the two World Wars that the attention of all belligerent nations of the World was drawn towards it. At no time in the history of the human race has there been so much world wide interest in finding a solution to this problem as there is today.

People with physical disabilities are prominent in legends and literature. The ancient Greek mythology gives numerous examples of the disabled people, such as Tiresias, Homer, Vulcan, Armorer. Northern European mythology abounds with dwarfs, gnomes, trolls and other mishaps.

Stereotypes about the psychological aspects of physical disability are prominent in the western society (Walman, 1977).

People who are deaf are said to be irritable or inclined to paranoia, those with cerebral palsy are described as being withdrawn and living in a world of fantasy. In other words the physical disability is believed to disturb the whole personality integration as it strikes at the very core of the self, the body image (Wolman, 1977).

As a result of extensive researches on disability as well as increased services to the disabled, there has been a greater awakening of public interest in the rehabilitation of the disabled persons. However, much more rigorous attempts are urgently required in community and professional services than what they are at present (Wright, 1968). The increased interest manifests itself in a concern for the physical and mental welfare of the disabled persons as well as in the many psychological issues related to the problem of disability. Consequently there have been the major goals of rehabilitation today.

The disabled face a wide range of problems, the solutions to which require an extremely broad spectrum of the professional experts whether the disability in question is a physical limitation or trauma, anatomical impairment or a variety of the types of mental retardation (on emotional retardation). It has become evident that medical treatment is only one facet of what has come to be a many-sided process (Wiener 1948). To return the patient to some desired and improved level of functioning necessitates the services of an

almost bewildering variety of experts, ranging from the orthopedic^a surgeon, at one end, to the vocational counselor and special educator at the other.

The new concept of rehabilitation originated in 1907, when Pasteur started a school for vocational training in Belgium, for such pupils as were found too unfit to be admitted to normal training courses. It was, however, only after World War II that the term "rehabilitation" came to be used in connection with the disabled veterans. It referred to the process of assisting them to achieve the fullest degree of physical, mental, social and vocational adjustment within the limitations imposed by disability. However, some of the experts in the field of social research preferred to call it re-education.

Rusk (1953) has summed up the entire process of rehabilitation as the "third phase of medicine". Many experts in the field of rehabilitation, however, feel that a great many of the problems of the disabled individuals are not medical at all, but involve meeting and coping with an entirely new set of psychological barriers to life adjustment. Whatever is felt to be the core of the process, the rehabilitation of a disabled person is now considered to be truly a comprehensive affair, involving the professional cooperation of an extremely diverse rehabilitation team.

(a) The Concept of Physical Disability, Handicap and Impairment

The term "disabled" conceals behind it a loosely connected heterogeneous group of many disabilities. Their range varies from a slight and partial disability, like the amputation of a finger which may have no effect at all on the routine life of an individual, to the most severe and total disability like the loss of both these extremities, which produces pronounced changes in the life style of an individual. Topliss (1975) has noted that "The concept of disability is a slippery one gliding imperceptibly into disadvantage or deviance unless somewhat arbitrarily defined", Disadvantage is conceptualized directly under the heading of 'handicap' although, admittedly, this still leaves difficulty in operationalizing the concept of disability as such.

In common parlance, however, the terms 'disabled' 'physically handicapped' and 'crippled' are used synonymously. But, in the expert interpretation, these terms have quite unique meanings. From the point of view of modern rehabilitation theory, a physical disability is considered to be an impairment of an anatomical nature, which may, or may not, constitute a handicap. "A handicap is the combined effect of physical, mental and environmental obstacles caused by the disability" Wood (1975) defined disability as "any restriction or lack of ability to perform any activity in the manner or within the range considered normal for a human being". In the context of

health experience, it thus represents a loss or reduction in the functional performance of the body or the person that is consequent upon impairment. Disability is characterized by excesses or deficiencies of behaviour and other functions customarily expected of the body or its parts. It may arise as a direct consequence of an impairment, or a disorder, or as a response by the individual, particularly psychological, to a physical, sensory, or other impairments.

The term physical handicap refers to human limitations, irrespective of whether disability is attributable to disease or injury. Whatever may be the cause, physical disability will lead to a limitation of physical function, whether locomotory, sensory or affecting special organs. "A handicap is the cumulative result of the obstacles which disability interposes between the individual and his maximum functional level" (Hamilton 1950, Wright 1960). A handicap is an impairment or a disability that constitutes a disadvantage for a given individual in that it limits or prevents the fulfilment of a role that is normal for that individual. Handicap is concerned with the value attached to an individual's situation or experience when it departs from the norm, and is characterized by a disordance between the individual's performance or status and the expectations of the individual himself. Handicap thus represents the consequences for the individual - social, economic and environmental, that stem from the presence of impairment and disability. English and English (1958) define handicap in terms of

reduced aptitude in performing the ordinary tasks of life, or a particular vocation or avocation, thus distinguishing a handicap from a crippling condition, which they associate with the inability to perform a certain kind of task. Hamilton (1950) differentiated between disability and handicap. A disability is a condition of impairment, physical or mental, having an objective aspect that can usually be described by a physician, and a handicap is its cumulative effect.

At the same time it must be recognized that not all conditions that may be described medically as disabilities are perceived as handicaps. For example, a blind person may not be handicapped in a work that does not require visual orientation; a person whose job does not require rapid locomotion may find his wheel chair no more frustrating than a bus ride is to the person who takes it for granted that he has to ride a bus to work every morning. A disability, then, is more particularly a medical condition, whereas a handicap refers to the somatopsychological relationship.

Demographic and morbidity changes have undermined traditional responses to disease and disability. The three concepts involved - impairment disability and handicap constitute a continuum. It ranges from the bio-medical phenomena (impairment) through functional limitation and activity restriction (disability) to social disadvantage (handicap).

Thus it is reasonable to expect that impairment will give rise to some form of disability with the attendant disadvantage. The term health impairment is defined as any loss or abnormality of psychological, physiological or anatomical structure or function . It thus represents any disturbance of or interference with the normal structure and the functioning of the body and the person (Wood, 1975). Thus impairment is characterized by a physiological or anatomical loss or abnormality, It includes a missing or defective limb, organ or tissue or other structure of the body, or an abnormality of a functional system or mechanism of the body. In experiencing such an abnormality of the functional system the individual is first involved in its manifestation and then its objectification in the day to day world of practical and social life.

The inter relationship between impairment, disability and handicap can be demonstrated as in Figure 1.

Fig. 1:

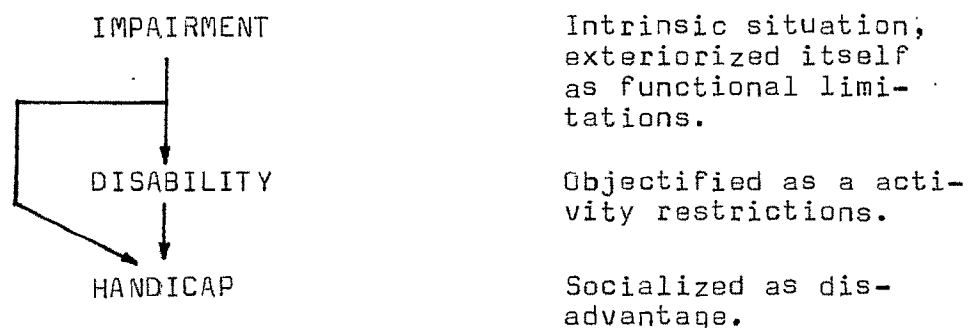


Fig.1: Interrelationships between impairment, disability and handicap (adapted from Badley 1978).

Presented above is an attempt at depicting the interrelationships, between disability and its consequences, which may prove to be of some practical use in generating better understanding and information about knowing the psychological effects of disability. It may also serve as guideline for rehabilitating the physically disabled people.

An integrated view of the model takes into account a number of difficulties. For instance, (i) interrupted sequences can occur. Impairments may be self-limiting, and disabilities may vary in severity. Also, the movement between one plane of experience and another may not be straightforward. It is possible, for example, to be impaired and not disabled and yet be handicapped. For example, the presence of a facial disfigurement. Thus it recognises the complexities and the mediating factors involved, be they psychological or sociological. A further problem in this connection could be visualized in that there is no necessary consonance between severity on the three planes. It simply cannot be predicted that a given degree of impairment will produce a similar degree of disability, or handicap. For example, Bury (1979) found that a minority of persons with low degrees of impairment suffered from severe disadvantages.

(b) Crisis Experience

The effects of periods of stress in an individuals

life have long been eloquently portrayed in literature. Before proceeding to a presentation of the problems of crisis experience, it would be fair to define the term crisis. The term crisis refers to "The experiencing of an acute situation where one's repertoire of coping responses is inadequate in effecting a resolution of the stress". (Miller and Iscoe, 1963). Some scholars however, treat it synonymously with stress, panic, catastrophe, disaster, violence or potential violence. The people from the medical discipline regard it as a "turning point" between a fortunate and an unfortunate change in the state of an organism. According to Chamber's Dictionary Crisis is a decisive moment or turning point in an organism's life.

Crisis consists of a convergence of events that result in a new set of circumstances. Fink (1967) explained crisis as an event in which the individual's normal coping abilities are inadequate to meet the demands of the situation.

A crisis is a situation in which the individual faces the necessity of making the appropriate choice of action in order to avoid or minimize severe punishment (Williams, 1957). A crisis is viewed as a threat, a challenge, a strain on the attention, a call to new action, A crisis may be so serious as to kill the organism or destroy it or it may result in failure or deterioration (Thomas, 1909).

Caplan (1955) described crisis as a state of emotional ill health in an individual which is preceded at sometime or another by the disturbance caused in his previous equilibrium. The individual passes through a period of emotional upset which is not in itself a period of emotional illness, but which leads eventually to a new state which may be the equilibrium of ill health rather than health. Moreover, this crisis, upset in the internal balance of forces within the individual, is usually precipitated by and is the reaction to a disturbance in the field of forces by which he is surrounded. Crisis is a period of potential change with lasting significance for the individual who is going through this event (Klein, 1961).

No circumstance, however unusual, is a crisis unless it is so experienced by the individual concerned (La Pierre, *Collective Behaviour*, cited in Hertzler, 1940).

Crisis produces uncertainties in assessing one's remaining abilities and in formulating alternatives for dealing with the changed or altered situation. It often tends to reduce control over events and their effects. Because of its varied meaning the term crisis has not been of much use in building a 'systematic knowledge' about social phenomenon. Depending upon the quality and intensity of the crisis experience, the individual may either take a step forward developmentally or fall back upon coping devices.

(c) Concept of Adjustment

The concept of adjustment originated in biology. In biology the term usually employed is 'adaptation', a concept which was the cornerstone in Darwin's (1859) theory of evolution. Darwin maintained that only those species (biological structures and processes in general) most fitted to adapt to the hazards of the physical World survived. Biologists and physiologists are still concerned with adaptation, and many human illnesses are considered to be the result of physiological processes of adaptation to the stresses of life (Selye, 1956).

The biological concept of adaptation has been borrowed by the psychologist and renamed 'Adjustment'. Adjustment and adaptation together represent a functional perspective for viewing and understanding human behaviour. That is, behaviour is seen as having the function of dealing with or mastering demands that are made upon the individual by his environment.

In short, human behaviour can be understood by conceiving it as an adaptation to various kinds of physical demands or an adjustment to psychological demands. Parallel with the biological concept of adaptation, in psychology behaviour is interpreted as adjustments to demands or pressures (Lazarus 1961).

Adjustment is defined as the act of adapting to a particular purpose (Urdang and Stein 1969). It is considered as an act of bringing something into conformity with external requirements. Adjustment to one's disability is defined as readaptation or reinstatement (Dembo, 1956, Wright 1960). Lazarus (1961) points out that adjustment consists of the psychological processes by means of which the individual manages or copes with various demands or pressures.

The survival model of adjustment emphasizes that behaviours are adjustive or appropriate if they keep the person alive and healthy. The medical model of adjustment assumes that there is a course for maladjustment that underlies deservable behavioural symptoms (Sechrest and Wallace 1967). In the comprehensive positive striving model "Adjustment is seen as including (1) positive selfregard and veridical self-awareness, (2) tendency to fulfill unique potential or to self-actualize (3) an accurate perception of reality, (4) efficiency in problem solving (5) autonomy, or capacity for independent behaviour (6) environmental mastery manifested in adequacy in love, work and interpersonal relationships and (7) an integration or organization of personality (Sechrest and Wallace 1967).

Shontz (1977) has said that the psychological maladjustment to physical illness and disability seemed obvious; and the common sense supported the belief that the primary source of distress in reactions to illness or disability was the illness or disability itself.

1.3 The Various Types of Physical Disability and the Problems of Adjustment

(a) Types of Disability and the Problems Posed by Disability (in Retrospect)

It is a universally recognized fact that the psychological development of a person is often distorted and damaged by his physical disability. In dealing with the physically disabled persons it is, therefore, necessary to distinguish between the limitations imposed by his disability, and the confidence a person has in himself to accomplish certain tasks. For example, a person who has lost both his arms obviously cannot fill a job which require fine manipulations of the fingers. It is interesting to note the extent of deprivation of physical capabilities in shaping an individual's personality.

Visual Disability:

Major valuable contributions are made to the knowledge of the influence of blindness and its effect on individual's adjustment. Burlingham (1961) in her observations on the development of blind children remarks that the blind baby, although not intentionally restricted, yet behaves in many respects like a restricted sighted child. Brieland (1950) summarises the works in the area of blindness and concludes that blind people exhibit less vocal variations and a lack of voice modulation altogether they are also found to be less effective in their use of gesture and are restricted in their

bodily action. Landirs and Bolles' study (1942) shows that young persons with visual disabilities have more trouble in heterosexual adjustments than the normal young people.

Sommer's study (1944) also indicates that blind adolescents do not show any concern about finding a boy or a girl friend as do the seeing adolescents. Many others also support the above finding (Meigham 1970, Fitts 1972, Williams 1971).

Hearing Disability:

Kahn (1951) has studied the effects of deafness and found a negative correlation between loss of hearing and ego-defensive responses ($r = -.34$), and between loss of hearing and obstacle-dominant responses ($r = -.24$). The study has also found that subjects who are hard-of-hearing do not have lower thresholds for frustrations.

Cerebral Palsy:

Many investigators (Adams 1968, Gertrude 1961, Burks 1960) have found out the limitations and effects imposed by cerebral palsy. They conclude that multiple disabilities in cerebral palsy complicate the process of adjustment. Numerous other studies of specific characteristics of cerebral-palsied patients shed light on adjustment problems. They say that these patients tend to be emotionally and socially immature (Gunn 1965, Muthard 1965). Wright (1960) has described a case of a boy who was severely affected with cerebral palsy. He showed

series of frustrations and felt terribly lonely. Wright concludes that the patients with cerebral palsy feel that their life is worthless and without any purpose.

Comparative studies have also been carried out to investigate the effects of brain-injury on the patient's adjustment. When brain-injured patients were compared with normal persons on I.Q. differences, the results showed that brain-injured performed poorer than normal subjects. These differences were found to be more accentuated on the more complex tasks (Resvold 1956, Cruse 1961, Garfield 1966, Schulman 1965). Schulman (1965) has found that brain-injured showed higher distractibility. However numerous other investigations have shown that brain-injured patients' impulsive, hyperactive behaviour tends to diminish with time (Rappaport 1965, Pincus and Glaser 1966, Mankes, Rowe and Mankes 1967).

Paraplegia:

The spinal cord injuries frequently cause partial or complete loss of sensory and motor function below the lesion. Siller (1969) has included depression in a theory of adjustment to spinal cord injury, linking it with the concept of mourning. Kuhn (1950) has reported patients with complex division of the spinal cord and has seen that some of them had no sensations referable below the level of the cord injury and in the rest of the portion burning "hot tingling" or "warm sensations" predominated.

Riddoch's (1917) classical study on the reflex functions of the spinal cord in man involved that the internal perceptual image of the legs was not present immediately after the injury. He related it's appearance to the onset of flexion spasms. These findings have also been supported by other investigators (Cook 1976, Little and Stewart 1975). Bars (1951) made a more extensive review of the body image with patients having traumatic interruptions of the spinal cord and found that all the patients had internal perceptual images of the legs which ~~w~~ were usually fragmentary and the frequency with which the distinct parts of the image were identified diminished from the toes to the ~~hip~~, with the exception of the knee. The paraplegic patients are confronted with physical and psychological problems (Singh and Magner 1975). They found that the paraplegics had low self-concept. The factors responsible might be the loss of bladder and bowel control, inability to walk, and so on and they cause great ~~shame~~ and feelings of inferiority and increased dependancy. Bars (1951) investigated that the internal perceptual image of paraplegics bears a close resemblance to a phantom limb, but different from it in the absence of telescoping and of increasing difficulty in moving the phantom.

Hemiplegia:

Shontz (1959) has summarized a number of studies conducted on hemiplegia subjects. Most of these studies have attempted to interpret the observed disturbances in terms of

the organic brain deficit known to occur in hemiplegia. In hemiplegia as well as in almost any other kind of disability, the amount of physical activity and interaction with the environment is markedly lowered by the limitations imposed by physical incompetence. Shontz also remarks that the hemiplegics exhibit greater body image-disturbances than the other patients. The nature of the disturbances seem to involve a loss of stability in judgements about distances between body parts and a tendency toward constriction of the size of judgements. Bardach (1965) Diller (1963) and Reitan (1959) have found that hemiplegia causes more functional disabilities. One hundred patients with hemiplegia were interviewed in Bellevue Hospital Center. The results indicated that out of the entire group, 28 denied the illness altogether and the majority knew clearly the nature and extent of their illness. The patients with hemiplegia often show common rationalizations which are grossly unrealistic. For instance if a hemiplegic patient is asked if anything is that matter with his or her hand, he would attribute it to weather and a little warming up would make it all right. The patients with affected extremities may either deny that there is anything wrong with their limbs, or if they are aware of the malady, they may find difficulty in identifying the affected part. The latter phenomena is called anatopagnosia (Nathanson, Bargmar and Gordon 1977).

Orthopedically Disabled:

Mary (1971) has studied the patterns of self destruction

among the orthopedically disabled persons and found that the suicide rate was higher in the disabled person than for the general population, and amputees had even higher rate than those with spinal cord injuries. The study has also shown that amputees were likely to commit suicide soon after the injury while paraplegics were likely to wait 5 years or more. Frank's (1973) studies on amputees in war casualty have shown that these people evinced conflicts over feelings of loss, guilt, dependency, anger etc.

Stafford (1950) points out that physical defect may influence personality by handicapping or thwarting the individual in the performance of ordinary tasks. Many researchers have attempted to study the disability outcome and self-assessment of the disabled persons and have found the correlations of psychological and physical index ($r = 0.49$; $df\ 426$). They have found the most effective variable to be the severity or the extent of the physical impairment (Susset, Vobecky and Black, 1979). A comparative structural and descriptive analysis on reactions to disabilities in China, Greece and America were done. Analysis was based on the social distance scale (SD) SDR and Felling check list (FE) which revealed that the attitudinal dimensions toward disability were multidimensional with two of the dimensions being level of response and disability type (Jacques and Burleigh 1973).

Anxiety affected the disabled more than the normal persons and had more negative effect on attitudes toward disabled persons (Katharine, Brookfield, 1969). Stafford (1950) has remarked that anxiety may be more intense due to their inability to earn after losing their limb and the disabled people encounter more economic difficulties. Many other investigators have also supported Stafford's view (Ruth, 1949, Wright, 1960, Shontz and Epstein 1971).

Murray (1973) interviewed 46 amputees and found the persistent complaints of pain in the phantom limb. A person has a phantom limb when he experiences sensations that apparently come from a missing limb. This phenomenon of phantom experiences has been investigated and supported by numerous investigators (Shontz, Epstein, 1971, Mitchell 1971 Haber 1971 Carlen and Wall 1978). Carlen and Wall's (1978) study indicated that phantom pain in amputated limbs probably results from peripheral or spinal cord mechanism or both. Although phantom limb of the amputee is a puzzling experience to the patient and is looked upon with suspicion by their families, it is a normal experience following amputation (Simmel 1967, Stubbins 1977).

The disabled individual feels that his free movement is highly restricted and that he cannot participate in some highly valued activities. This leads to self devaluation. Although physical limitations may produce suffering and

frustration, the limitations imposed by the evaluative attitudes towards physique get far deeper and spread far wider. They affect the person's feelings about himself/as a whole (Wright 1960).

Another very crucial problem that the physically disabled come across is that their position has been likened to that of the underprivileged groups (Barker 1948). For example, employment opportunities, particularly at the higher levels are sharply limited. Henry Ford (1926) stated; "We are too ready to assume without investigation that the full possession of faculties is a condition requisite to the best performance of all jobs". Likewise, the social and recreational activities which the persons with a disability are able to engage in are also restricted.

(b) Disability and the Problem Dependence

As a child grows he learns what he can do for himself and that entails the assistance of others. Thus a consistently changing recognition of a dependency/independency relationship develops. In a state of disability an individual is in a state of conflict which he has to discern and act upon the condition requiring independence, or dependence. Thus, one may visualize dependency on a behavioural continuum from maximum of independence to maximum dependence. Dependency is a major factor in the personality pattern of the physically disabled. This results from

circumstances as some disabilities either do not permit full motor discharge, as in amputation and paraplegia, or restrict motor discharge as in tuberculosis. Extensive attempts have been made to assess the limitations imposed and disturbances caused by emotional factors leading to maladjustment (Smith 1967, Lincoln 1966, Dubos 1953, Lewis 1955, Vernier 1961).

(c) Problem of Crisis Experience in Retrospect

Viewing a 'crisis' as an event or situation in which the individual's normal coping abilities are inadequate to meet the demands of the situation Fink (1971) postulated four sequential phases of crisis experience: (1) shock, the period of initial psychological impact; (2) defensive retreat, the period during which the individual defends himself against the implications of the crisis; (3) acknowledgement, the period when the individual faces the realities of the crisis; and (4) adaptation, the period during which the person actively copes with the situation in a constructive manner.

Crisis affects the free functioning of the individual in four ways: (1) the stressful event poses a problem which is insoluble in the immediate future; (2) it overtakes the psychological resources of the individual sufferer; (3) the situation is perceived as a threat or danger to the life goals of the individual; and (4) the crisis produces tension which mounts to a peak and then gradually falls (Parad and Caplan, 1960).

The person in crisis experiences generalized physical tension which may be expressed in a variety of symptoms including these commonly associated with anxiety. These reactions may be immediate and temporary or they may constitute a long term adjustment to the crisis situation itself.

Shock Phase:

The full realization by the individual that "something has happened" is described as the initial period of "shock" or impact. During this phase the various aspects of psychological functioning become "frozen". The person feels emotionally numb. He perceives reality quite sharply but shows no appropriate reaction; he is not able to formulate any plan of action (i.e. he operates in a somewhat automatic fashion). He experiences a sense of depersonalization; and appears to be docile and submissive to the will of others. The normal functioning of the organism either breaks down or suffers a serious loss in efficiency (Shontz 1964).

During the shock phase the individual perceives real danger to himself, he experiences threat to self-preservation. He perceives reality as something suddenly become "too much to handle" with the resulting emotional state of helplessness and intense anxiety, reaching to the point of panic. Cognitively, there occurs a disruption of co-ordinated thinking; the person feels confused, cannot fully grasp what is happening and, consequently, cannot plan adequately to cope with

the situation. Lindemann (1944) reports that surgery represents a crisis of some degree for all individuals.

Defensive Phase:

The disabled individual cannot tolerate the overwhelming chaos accompanying the shock. He tries to fortify the habitual and familiar structure so as to shut out or control, the threat imposed by the experience. The individual indulges in wishful thinking and tries to avoid the reality and there is a desperate clinging to what always has been. Thus he experiences a sense of emotional relief which is described as unrealistic state of happiness (Euphoria).

During this stage the individual's thinking becomes rigid and he refuses to consider the possibility of any change in any aspect of his life style, values or goals. The disabled individual strengthen his defenses to the extent that even some significant physical recovery is interpreted as a sign that everything is returning to the former state (Fink 1967).

Henting (1948) studied social crisis and found that disabled persons generally respond with aggression and withdrawal. The usual initial reaction of an injured person, is depression and the absence of it may itself indicate the denial of the real situation in which he is, Sebest (1973) studied the effects of major surgery and found that the

amputees showed defenses against the new changes. Thus it had been stressed upon by several authors that disability be considered as a crisis inducing factor (Fink 1967, Davis 1963, Cohn 1961).

Acknowledgement Phase:

The disabled individual no longer finds it possible to escape reality, whether he likes it or not. Sooner or later he has to acknowledge to himself that he is no longer the person that he was before. Reality has imposed itself and he finds that a change has occurred and he cannot reverse this change. He experiences the loss of his valued self-image. The feeling which accompanies these changes is one of deep depression. There is a sense of loss and often an attitude of bitterness. The individual shows an inability to comprehend the nature of the changes that have occurred. On a cognitive level he faces a breakdown of his organized planned thinking. This is followed by the beginnings of a reorganization in terms of the altered reality perceptions. Things are recognized for what they are and the individual tries to take some planned course of action. This course of action takes a variety of directions. When extreme agitation and feelings of worthlessness dominate the picture, suicide may be contemplated or even attempted. The disabled individual acknowledges his injury after he has begun to experience a physical plateau.

Adjustment and Change Phase:

The physical disability is usually fixed by this time and the degree of handicap may lessen through the use of prosthetic devices. The individual works with and cares for his physical body in ways which will prevent future complications. He tries to maximize the physical resources available. He begins to "try himself out", explore resources within himself, and test them against the limitations and expectations of reality. New satisfactions are experienced and with this, a gradual lessening of anxiety and depression. Thinking and planning are organized in terms of present resources and future potentials. The individual often sees his crisis in a positive light, he sees it as a means by which he has come to understand life more deeply and as a preparation for possible future crisis. Janis (1958) has found surgery patients with excessive fear are more likely to experience poor recovery.

The physical disability is likely to be perceived as a threat to the self-concept, for it may hamper the individual's adjustment to meet social standards, and his own social goals. The psychological problems which are peculiar to disability lie in the perception by the disabled himself and others that he is different. This may hamper his adjustment to disability (Dembo, 1948, Barker 1953, Shontz 1970). The issue of crisis as

experienced by the disabled is by no means closed as there is hardly enough research in this specific area to permit conclusions regarding crisis experience of the disabled persons and their reactions to it. (See Appendix - C Coding Manual).

(d) Problems of Adjustment in Retrospect:

Adjustment is defined as the act of adapting or adjusting to a particular purpose. The overcoming of psychological suffering caused due to physical illness or injury, whether or not it threatens mental illness, is a problem of adjustment (Dembo 1948).

Sidney (1949) tried to relate adjustment with one's self-concept and found that negative attitudes of the amputees toward the self hamper their adjustment. Bell (1968) explored the attitudes of the orthopedically disabled persons with the help of Disability Scale of Adjustment (BDSA) and found that there was an active and passive acceptance and rejection of the loss, but within the adjustment paradigm.

Spread in Adjustment to Disability:

The physique is considered to be a highly central characteristic of the person as it is intimately connected with the identity of a person. The main reason for the potency of physique in generating the spread phenomenon is that of stimulus primacy visibility (Wright 1960). The second condition facilitating spread has to do with emotional factors which engender differentiation and fluidity of cognitive processes. By dedifferentiation is meant a primitivization in which parts of a system become less defined. To explain it in another way, the parts become more global in structure. Fluidity refers to the ease with which boundaries within a system are crossed. Both fluidity and dedifferentiation are assumed to characterise heightened emotionality, and therefore it is predicted that such a state would give rise to spread effects, which in case of disability, would encase the person in an overwhelming undifferentiated devaluation.

Heider's (1958) balance theory lends considerable support to the spread phenomenon. It says that man has a tendency to bring into harmony conditions as they exist with conditions as they ought to be. In short, the "ought" and "is approach congruency". The negative spread to the cause of

disability is given a moral significance.

The handicapped persons greatly fear that their disability will certainly bar them from the world of work. They are uncertain regarding future economic security which generates anxiety and in turn creates a whole "matrix of adjustment problems" (Lerner 1949, Dinsdale, 1971) Garrad (1967) established that there was a gradient in the prevalence of psychological disturbance as identified by the validated psychometric scales.

Social Acceptance :

Dembo (1949) conducted a series of studies in adjustment to the visible injuries and their social acceptance. She found that the reasons for non-acceptance as shown by the disabled patients were : (1) the non-injured overemphasize the limitations of the injured (2) feel aesthetically repulsed and tend to relegate them to a lower status. She further stated that even when these factors are minimized the injured persons may still have a feeling that the proffered acceptance lacks in sincerity. Cruickshank (1948) describes the physically disabled as differing from non-disabled in that they regard their disabilities as barriers to moving from old life regions to new ones which inculcates a feeling of worthlessness in them as a result of which they become increasingly frustrated. Harper (1978) investigated MMPI profile differences between disabled and non-disabled adolescents and found

that male Ss showed higher scores on the scale than the female Ss.

For explaining the effects of physical disability Barker (1953) summarised the associated literature which may serve the purpose:

"When the disabled physique had a seriously limiting, depriving effect both physically and socially, behaviour and personality were seriously affected. When the physique as a tool helped to create a moderately limiting and uncertain situation, and as a social stimulus produced a neutral or protecting and gratifying situation i.e. when the subject was placed in an overlapping (depriving and gratifying) situation..... the consequences for behaviour were inhibition, passivity and withdrawal" (P.63).

Hart (1955) commented, "Any event or illness which withdraws the libido from muscular activity tends to increase passivity" (P.597).

It is necessary to investigate the individual's (amputee's) own perception of his amputation which affects his ability to satisfy his needs and which will ultimately determine his ability to adjust (Robertson 1975). Ingham (1976) found no significant differences between groups of disabled veterans on measures of social adjustment and severity of injury. Jentsch (1972) studied the social adjustment of 69 Vietnam veteran lower-extremity amputee and found

that working amputee with low involvement in leisure time activities had more negative attitudes toward self and were found to be more highly alienated than the non-working amputees. He also assessed that work was seen primarily as a measure of physical adjustment rather than over-all adjustment.

The principle, containing disability effects, attacks the spread phenomenon by indicating that the adjustment process involves a new look at the implications of disability, so that they can become confined to these areas which are disability connected. The main problem for the person is to begin to see meaning and potential in those aspects of life which are not touched by disability or closed off for the person. It requires a renewal of values that have been effected by the disability as well as an appreciation of new ones.

Severely physically disabled adults do not differ more in their perception of stress than the non-disabled adults do (Hartung, 1975, Weber, 1977).

Self concept and Adjustment to Disability:

Cordaro (1969) administered tests to measuring self-evaluations of disability effects to two groups of physically disabled Ss. Group A was in psychological situation conducive to minimal personal identification with their disabilities. Group B was in a psychological situation making identification

with disability as advantageous. Results indicated significant differences between groups, Group A showed more flexibility of response than group B.

Impairment in physique, places the person in new psychological situations and antagonistic overlapping role situations, which cause psychological maladjustment. (Meyerson, 1971) Fishman (1949) investigated the relationship between the individuals self-concept, reaction to prosthesis and his adjustment to physical disability and found ~~tpoor~~ self concept more frequently in the amputee.

1.4 Theoretical Assumptions underlying the present study

- (a) Assumption regarding the Body-image Concept and "Totality-lost".

Body-image represents the total awareness of the body. If there is damage to the central mechanism or to any of the peripheral sources of information it may lead to disturbances in the body-image. That is why after amputation of a limb the patient gets phantom image of his missing limb. There are ample empirical evidences (Shontz, 1971, Perks, 1973) to show that once any body part is lost it leaves the patient in shambles or complete disaster. The person in this position views himself in a state of helplessness. He perceives himself in relation to his total physique, as he is also viewed by others. Therefore one of the underlying

assumptions is that physical injury received through war or accident leads to considerable changes in the way the disabled perceives himself.

b. Assumption regarding adjustment to Crisis.

It is assumed that adjustment to disability represents a special instance of the problem of adjustment to crisis. Hence it requires an adequate understanding of the nature and determinants of crisis experience. Various studies have shown that physical injury is experienced as misfortune or a crisis. The more the severity of injury, the greater the intensity of the crisis experience. The process of adjustment to crisis usually entails four phases ; shock, defensive retreat, acknowledgement and adaptation (For details see p) (Davis,1963, Cohn 1961 and Fink 1967). The different phases of adjustment to crisis and the accompanying changes in some of the psychological dimensions of personality are in need of intensive studies.

c. Assumption regarding Understanding of the Psychological Aspects of Disability:

As it is assumed that any kind of disability is almost always accompanied by shock, the patient is left with a feeling of incompleteness or experiences being a shattered self. Major changes take place in different dimensions of his personality such as self-experience, reality perception,

emotional experience, cognitive structure, physical disability and attitude toward help and sympathy, (Fink 1967). The problems of the disabled people also get more acute due to the societies' attitude towards the disabled person e.g.

$$B = F(P,E)$$

behaviour is a function of person's environment (Meyerson, 1963, Lewin 1936, Wright 1960); therefore psychological maladjustment is not only due to the person's disability; it occurs more because of others' attitudes towards him, and even more when the patient accepts his devaluation by others.

(d) Assumption regarding Rehabilitability of the Disabled People.

One who has an acquired physical disability, experiences a profound change in his life. He is the one who is the loser of one or more parts of the body. During the initial phases of disability and crisis experience the patient often goes through a long period of frustration that might doom the effort of rehabilitating him at that phase. (Dembo 1977, Shontz 1970, Bhatt 1963).

Having analysed the problems faced by the disabled people, the next questions arise as to (i) how these millions of people with physical disabilities could be helped,

(ii) ^{how} to restore their capacities to the normal level, so as to make them maximally effective, Coordinated social and rehabilitative services should aim at meeting the needs of the disabled persons. Ample researches also support this contention (Margolin, 1955, Stotsky, Mason and Semaras, 1958). There is a burning need for the experts from different professional areas to cooperate to rehabilitate the persons in this state. For a "responsible society must insure that every one of its members has a maximum chance of development" (Heering, 1968).

1.5 Theoretical and Practical Significance of the Study.

It is very clear from the earlier researches that disability imposes certain limitations on the individual's abilities. He experiences a great loss of something valuable to him. Since disability is viewed as acute physical and psychological shock (Barker 1953, Wright, 1960), it is necessary to see that there are some proper ways to help the patient out. At the same time it is very sad to state that in India we do not have very satisfactory information regarding the problems faced by the physically disabled persons. Thus the present study aims at exploring the areas in which the disabled find difficulty in adjusting or resettling.

This study was an attempt to find out, what people experience upon discovering that they have lost some part of the body i.e. leg or arm. What are the factors that determine whether they will adjust to normal life situations after experiencing crisis? Why do some of them become panic stricken during an episode of extreme stress, whereas others exposed to the same disruptive stimuli are able to control themselves and adjust in better ways? To what extent the surviving individual will regain his normal level of emotional equilibrium after the harrowing crisis is over.

No systematic attempts have been made by earlier researches in India to answer the above stated questions or to measure the psychological effects as the consequences of disability. The present study envisages an enquiry into the patterns and dynamics of the adjustment problems of the disabled people. The role of the type of injury, the values, the world hypotheses and the level of adjustment achieved are discussed in terms of the results obtained. The results are interpreted in terms of different theoretical and empirical studies on the psychological aspects of disability and adjustment to it. After investigating the above stated problems, it is discussed how the disabled people can be helped to live with it or rehabilitated.

Thus it is hoped that this study would be of some help in understanding some aspects of the problems of adjustment which are faced by the disabled people.

1.6 Statement of the Specific Problem Under

Investigation:

On the basis of the research literature reviewed above, it appears that the questions related to the effects of disability and the problems arising as the consequences of it require rigorous attention of the researchers in the Indian context. Therefore, the present study, namely ;

"A Study of Some Factors in Crisis Experience and Adjustment Problems of the Physically Disabled People" was undertaken.

REFERENCES

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- Adams, M. E. Problems of Management of Mentally Retarded Children with cerebral Palsy, Journal of Cerebral Palsy (Vol.29), 1968.
- Bardach, J. L. Psychological considerations in bracing. Orthopedic and Prosthetic Appliance Journal. 1965.
- Barker, R. G. The Social Psychology of Physical Disability. Journal of Social Issues, 1948.
- Barker, R. G. et al. Adjustment to Physical Handicap and Illness : A Survey of the Social Psychology of Physique and Disability (rev.ed) Social Science Research (Council Bull. New York) 1953.
- Bell, A. H. Measure for Adjustment of the Physically Disabled. Psychological Abstracts (Vol.42) No.5, 1968.
- Belles, M. M., Landis, C. Personality and Sexuality of the Physically Handicapped Woman. New York : Paul B. Hoeber, 1942.
- Bhatt, U. The Physically Handicapped in India. A Growing National Problem. Popular Book Depot, Lamington Road, Bombay-7, India, 1963.
- Bors, E.A.M.A. Archieves of Neurological Psychiatry (1951).

Brieland, M. A comparative study of the speech of Blind and sighted children. Speech Monographs, In American Psychologists (Vol.5) 1950.

Burlingham, D. Some Notes on the Development of the Blind. In the Psychoanalytic study of the child. International Universities Press, New York, 1961.

Burks, H. The Hyperkinetic Child. Exceptional Children 1960. 27

Bury, M. R. Disablement in Society: Toward an integrated perspective. In Journal of Rehabilitation Research 2(1), 1979.

Carlen, P. L. Wall, P. D. et al. Phantom Limb and Related Phenomena in Recent Traumatic Amputations. Journal of Neurology, Vol. 28, 1978.

Caplan, G. The Role of the Social Worker in Preventive Psychiatry. Medical Social Work IV. 1955.

Cook, D. Psychological Aspects of spinal cord Injury. Rehabilitation Counselling Bulletin, 1976.

Cohn, N. Understanding the Process of Adjustment to Disability. Journal of Rehabilitation, Vol.27(b), 1961.

- Cordaro, L. L. et al. Psychological Situation as Determinants of Self-evaluations. Journal of Counselling Psychology, (Vol. 16) No.6, 1969.
- Cruse, D. B. Effects of Distraction upon the Performance of Brain Injured and Familiar Retarded Children. American Journal of Mental Deficiency (Vol. 66), 1961.
- Cruickshank, W. M. The impact of Physical Disability on Social Adjustment. Journal of Social Issues, 1948 (Vol.4), p. 78-81.
- Darwin, C. The Origin of Species, London, Journal Murry, 1859.
- Davis, F. Passage through Crisis. Polio Victims and their Families. Bobbs-Merrill, New York, 1963.
- Dembo, T., Leviton, G. L. et al. Adjustment to misfortune-a problem of social psychological rehabilitation. Artificial Limbs, 1956, 3, 10-50.
- Dembo, T., Landieu, G. and Wright, B. A. Adjustment to misfortune, a study of the Social-emotional relationships between injured and non-injured people. Washington D. C. : Army Medical Research and Development. Board, War Department, 1948.
- Dembo, T., Leviton, G. L. and Wright, B. A. Adjustment to misfortune - A Problem of Social-Psychological Rehabilitation. Artificial Limbs, 1956.

- Dembo, T. The Utilization of Psychological Knowledge in Rehabilitation. In Stubbins, J. (ed) Social and Psychological Aspects of Disability, University Park Press, London, 1977.
- Diller, L. Sensorial and Psychological Factors in Stroke. Read at Stroke Conference, Chicago, 1963.
- Dubos, R. J. Biologic and Epidemiologic Aspects of Tuberculosis. American Review of Tuberculosis (Vol. 67), 1953.
- English, H. B. and English, A. C. A comparative Dictionary of Psychological and Psychoanalytical Terms. New York: David McKay Co. Inc. 1958.
- Fink, S. L. Crisis and Motivation : A Theoretical Model. In Archives of Physical Medicine and Rehabilitation, Vol. 48, 1967.
- Fitzsimmons, M. Treatment of Problems of Dependency Related to Permanent Physical Handicap. Journal of Social Case Work, 1943, p. 324-335.
- Fitts, W. H. The Self Concept and Behaviour : Overview and Supplement. Monograph No.7 Counselor Recordings and Tests, Nashville, Tenn. 1972.
- Fishman, S. Self-concept and Adjustment to Leg Prosthesis. Unpublished Doctoral Dissertation, Columbia Univ. New York, 1949.

- Ford, H. in collaboration with S. Crowther. My Life and Work, Double-day, New York, 1926.
- Frank, J. L. The Amputated War-causality in Military Hospital, Journal Child Psychiatry Clinic Philadelphia, 1973.
- Garfield, J. C., Benton, A. L. et al. Motor Impersistence in brain-damaged and cultural familial defectives. The Journal of Nervous and Mental Disease, 1966.
- Garrad, J. Impairment, Disability and Handicapped, Social Science Research Council, Heinemann Educational Books, London, 1974.
- Gertrude, S. R. Psychological and Intellectual Problems of the Multiple Handicapped. National Catholic Education Association Bulletin (Vol. 58) 1961.
- Gunn, R. Some Personality characteristics of cerebral Palsied children. Dissertation Abstracts, 1965, 25.
- Haber, Body Experience. In Shontz, F. Epstein, W. Psychology in Progress, Holt, Rinehart and Winston Inc New York, 1971.
- Harper, D. C. Personality Characteristics of Physically Impaired Adolescents. Journal of Clinical Psychology. Psychol Abstracts, 1979, 61(1-3) 634.
- Hartung, J. R. Psychological and Behavioural Consequence of a change in Lower Extremity Orthosis. The Science

and Engineering Abstracts International, 1975

No. 7-8, p. 3581 B.

Hart, H. H. The Meaning of Passivity. *Psychiat. Quart.*,
1955, (Vol. 29), p. 597.

Heering, A. H. Rehabilitation in a Responsible Society,
Mens on Ordeneming, *Psychol Abst.* 1968, 22(3) 148-155.

Heider, F. The Psychology of Interpersonal Relations. Wiley
New York, 1958.

Henting, H. V. Physical Disability, Mental Conflict and
Social Crisis. Journal Social Issues (Vol. 4), 1948.

Hertzler, J. D. Crisis and Dictatorship, American Socio-
logical Review, 1940, 5.

Ingham, Doland, F. The Physically Disabled Vietnam Era
Veteran: Anomic and Social Adjustment. The Humanities
and Social Sciences Dissertation Abstracts Inter-
national 1976, No.5-6.

Jacques, M. E., Burleigh, et al. Reactions to Disabilities
in China: "A comparative, structural and descriptive
analysis". Rehabilitation Counselling Bulletin, 1973.

Janis, I. L. Psychological Stress: Psycho-analytic and
Behavioural studies of surgical Patients. Wiley &
New York, 1958.

- Jentsch, D. P., Work and its relationship to Social Participation and Involvement in Leisure-time Activities : A study of Vietnam Veteran Lower-extremity amputees. The Humanities and Social Science. Dissertation Abstracts International. 1972 (Vol. 32) No.7-8, p. 4117.
- Kahn, H. A. Comparative Investigation of the Responses to Frustration of Normal Hearing and Hypacousic Children. Ann Arbor : University Microfilms, 1951.
- Katharive, K. B. Attitudes of the Disabled and Non-disabled toward self and toward disabled and Normal Persons. International Dissertation Abstracts, 1970.
- Kerr, N. Understanding the Process of Adjustment to Disability In Stubbins (ed) Social Psychological Aspects of Disability University Park Press, London, 1977.
- Klein, D. C., Lindermann, E. Preventive Intervention in Family Crisis Situations. In Caplan G (ed), Prevention of Mental Disars in Children, Basic Books, New York, 1961.
- Lazarus, R. S. Patterns of Adjustment and Human Effectiveness, McGraw-Hill, New York, 1961.
- Lerner, R. S. Rehabilitation at Hunter College, Journal of Exceptional Child. Psychol Abstracts, 1950(Vol.24) No.3, p.175.

- Lesser, M.S. et al. Factors Prognostic for Vocational Rehabilitation Among the Physically Handicapped. Archives of Physical Medicine Rehabilitation, 1953. (Vol. 27) No.10, 760-61.
- Lewin, K. Principles of Topological Psychology, Pub. McGraw-Hill, New York, 1936.
- Lewis, M. Management of Parents of Actually Ill Children in the Hospital. American Journal of Orthopsychiatry (Vol. 32) 1955.
- Lincoln, E. M. The continuing Menace of Tuberculosis for Children. Journal-Lancet, 1966.
- Lindemann, E. Symptomatology and Management of Acute Grief, American Journal of Psychiatry, CI. 1944.
- Little, N. D. and Stewart, L. M. Vocational Rehabilitation of Spinal Cord Injured in Individuals. In M. J. Fuhrer (ed) Selected Research topics in Spinal Cord Injury Rehabilitation. Texas Institute for Rehabilitation and Research, Houston, 1975.
- Mankes, M. N., Rowe, J. S. and Mankes, J. H. A follow-up study on the Hyperkinetic child with minimal Brain Dysfunction. Pediatrics (Vol. 39) 1967.
- Margolin, R. Member-employee Program. New Hope for the Mentally Ill. American Archives of Rehabilitation Therapy (Vol. 3) 1955.

- Mary, H. Patterns of self-destruction among the Orthopedically Disabled. Journal of Rehabilitation, 1971.
- Meigham, T. An investigation of the self concept of blind and partially seeing adolescents and of the relation of their self concepts to academic achievement in language. Unpublished doctoral dissertation, Catholic University, Washington, D. C. 1970.
- Meyerson, L. Somatopsychology of Physical Disability. In Cruickshank W. H. Psychology of Exceptional Children and Youth (Third ed). Prentice-Hall, Inc. 1971.
- Meyerson, L. The Life and Times of Division. Psychological Aspects of Disability, 1963.
- Miller, K. and Iscoe, J. The concept of crisis : Current Status and Mental Health Implications. Human Organizations : 1963.
- Mitchell, S. W. Body Experience. In Shontz, F., Epstein, W. Psychology in Progress, Holt, Rine, Hart and Winston Inc, New York, 1971.
- Murray, P. C. Factors Determining the Persistence of Phantom Pain in the Amputee. Journal Psychosomatic Research, 1973.
- Muthard, J. E. MMPI Findings for Cerebral Palsied College Students. Journal of Consulting Psychology, 1965.

- Nathanson, M. Bergman, P. S. and Gordon, G. G. Denial of Illness. In Stubbins, J. : Social and Psychological Aspects of Disability, University Park Press, London, 1977.
- Parad, H. J., Caplan, G., A Framework for Studying Families in Crisis, Social Work, 1960.
- Perks, C. M. Factors Determining the Persistence of Phantom Pain in the Amputee. Journal of Psychosomatic Research, 1973.
- Pincus, J. H., Glaser, G. H. The Syndrome of minimal-brain Damage in Childhood. The New England Journal of Medicine (Vol. 1) 1966.
- Rappaport, S. R. Diagnosis, Treatment and Prognosis. In S. R. Rappaport (ed.) Childhood Aphasia and Brain Damage Livingston Publ. Cum; (Vol.2) 1965.
- Reitan, R. M. The effects of Brain Lesions on Adaptive Abilities in Human Beings. Indianapolis, Indiana University Medical Center, 1959.
- Riddoch, G. The Reflex Functions of the completely divided spinal cord in Man, compared with Less Severe Lension. Brain. 1917 (Vol. 40).

- Robertson, Lyndall, M. The effects of Individual and Group Counselling on the self-concept of Physically Handicapped College Students, The Humanities and Special Sciences, International Abstracts 1975 (Vol. 9-10).
- Rosvold, H. E. et al. A continuous Performance Test of Brain Damage. Journal of Consulting Psychology, 1956.
- Rusk, H. A., Taylor, E. J. Living with a disability, Garden City, New York, Blakiston, 1953.
- Ruth, L. S. Rehabilitation at Hunter College. Journal Exceptional Child. 1949.
- Schulman, J. L. Brain-damage and Behaviour - A Clinical Experimental Study, Springfield, III Charles C. Thomas, Publishers 1965.
- Sechrest, L., and Wallace, J. Psychology and Human Problems. Charles Merrill, Columbus, O. 1967.
- Sebest, E. A study of the effects of major surgery on the body image, The Sciences and Engineering, Dissertation Abstracts International Xerox Uni. Microfilms 1973 (Vol. 34) No.1.
- Selye, H. The Stress of Life. New York : McGraw-Hill, 1956.



- Shontz, F. Epstein, W. Body Experience Psychology in Progress, Holt, Rine Hart and Winston Inc. New York, 1971.
- Shontz, F. C. Reactions to crises. Paper presented at Speech and Hearing Workshop. Kansas University Medical Center, Kansas City, Kansas, 1964.
- Shontz, F. C. Physical Disability and Personality: Theory and Recent Research. In Stubbins J. (ed) Social Psychological Aspects of Disability, University Park Press, London, 1977.
- Shontz, F. C. Physical Disability and Personality: Theory and Recent Research, Psychological Aspects of Disability. Journal of Social Issues, 1970.
- Shontz, F. C. Physical Disability and Personality. In W. Neff (ed) Rehabilitation Psychology. American Psychological Association. Washington, D. C. 1971.
- Shontz, F. C. Physical Disability and Personality, Journal of Rehabilitation Psychology, Washington D. C. 1971.
- Shontz, F. C. Physical Disability and Personality. Journal of Rehabilitation Psychology. Washington D. C. 1977.
- Shontz, F. C. Body Concept Disturbances of Patients with Hemiplegia. Journal Clin. Psychol., 1956 (Vol.12).

- Siller, J. Psychological Situation of the Disabled with Spinal Cord Injuries. Rehabilitation Literature, 1969.
- Sidney, F. Self-concept and Adjustment to Leg Prosthesis, Collumbia University, New York, 1949.
- Simmel, M. L. The Body Percept in Physical Medicine and Rehabilitation. Psychological Journal (Abstracts) Vol. 41, No.6, 1967.
- Smith, M. H. D. Tuberculosis in Adolescents, Characteristics, Recognition, Management. Clinical Pediatrics, 1967.
- Singh, S. P., Magner, J. Sex and Self : The Spinal Cord-Injured. Rehabilitation Literature, 1975, 36 (1) 2-10.
- Sommers, V. S. The Influence of Parental Attitudes and Social Environment on the Personality Development of the Adolescent Blind. New York : Amer. Found. for the Blind, 1944.
- Stafford, G. Physical Handicaps and the Personality. Sports for the Handicapped. Prentice-Hall, Inc. 1950.
- Stotsky, B., Mason A. and Semaras, M. et al. Significant figures in the Rehabilitation of Cronic Mental Patients. Journal of Chronic Diseases (Vol. 17) 1958.
- Stubbins, J. Social and Psychological Aspects of Disability. A Handbook for Practitioners, University Park Press, London, 1977.

- Susset, V., Vobecky, J., Black, R. Disability outcome and Self-Assessment of Disabled Persons. Archives of Physical Medicine and Rehabilitation (Vol. 60), 1979.
- Thomas, W. I. Source Book for Social Origins, Richard G. Badger, Boston, 1909.
- Vernier, C. M. et al. Psychological Study of the Patient with Pulmonary Tuberculosis. Psychological Monographs, 1961.
- Wall, P. D. Phantom Limbs and Related Phenomena in Recent Traumatic Amputations. Journal of Neurology (Vol. 28) 1978.
- Weber, L. E. Perceptions of stressful life events ; A comparison between Physically Disabled and Non-disabled Adults. International Sciences and Engineering. Int. Xerox Univ. Microfilms, 1977 (Vol. 38) 5-7, 3368.
- Wiener, D. Personality Characteristics of Selected Disability Groups. Journal of Clinical Psychology, 1948 (Vol.4) 285-289.
- Williams, H. B. Some Functions of Communication in Crisis Behaviour : Human Organization, XVI, 1957.
- Williams, J. Manifest anxiety and self-concept: A comparison of blind and sighted adolescents. Unpublished Doctoral Dissertation. University of Maryland, College Park, 1971.

- Wolman, B. B. Psychological Aspects of Physical Disability.
In International Encyclopedia of Psychiatry and
Neurology (Vol. 5) Aesculapins Publishers, 1977.
- Wright, B. A. Physical Disability A Psychological Approach,
Harper and Row Pub. New York, 1960.
- Wright, B. A. Psychology and Rehabilitation. Washington, D.C.
American Psychological Association, 1959.
- Wright, G., Trotter, A. Rehabilitation Research.
University of Wisconsin, Madison, 1968.