PLAN OF THE STUDY
3. PLAN OF THE STUDY

A research problem may be described as a situation perceived by researcher as a source of dissatisfaction to which preferable alternatives are considered possible. Thus, definition of any problem has two important aspects, namely, a source of dissatisfaction and possibility of improvement (Zaltman and Burger, 1975).

3.1. The topic for the present dissertation was:
“Sense of Subjective Well-being, Self-esteem, Coping style, Psychiatric Morbidity and adjustment of Orthopaedically Handicapped youths and Rehabilitation Problems faced by them”

Accordingly, the problem might be elaborated in the following way:
The present study deals with the orthopaedically handicapped youths, due to amputation of lower limbs (Transtibial or Transfemoral amputation). Esquenazi, (2004) reported that the exact number of people having had amputations of lower limbs world wide is difficult to ascertain, as many countries do not keep records of the number of people with limb amputations. However, based on information available from National centre for Health Statistics there are approximately 50,000 new amputations every year in the USA. Extrapolating data from this and other health statistics data available from Europe, Asia and various countries around the world one can determine that the major causes of amputation in order of incidence are trauma, including war related injuries, diseases and congenital limb deficiencies.

The causes of amputation vary from country to country. In the developing world, trauma is the leading cause of amputation caused by inadequately treated fractures, motor vehicle accidents (motor cycle and train) and other motorized machinery. In countries with recent history of warfare or civil unrest, trauma can account for up to 80% of all amputations and India, being a developing nation, is no exception from this. Moreover, as compared with limb loss due to disease, traumatic amputations occur in a much younger active and economically productive population because of the high number of trauma related amputation. A lower limb amputation ideally undergo specifically through the following phases:
Table 3.1.: Phases of Amputee Rehabilitation.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Hallmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-operative</td>
<td>Asses body condition, patient education, surgical level discussion, post operative prosthetic plans.</td>
</tr>
<tr>
<td>Amputational surgery/reconstruction</td>
<td>Length, myoplastic closure, soft tissue coverage, nerve handling, rigid dressing.</td>
</tr>
<tr>
<td>Acute post surgical</td>
<td>Wound healing, pain control, proximal body motion, emotional support</td>
</tr>
<tr>
<td>Pre prosthetic</td>
<td>Shaping, shrinking, increase muscle strength, restore patient locus of control</td>
</tr>
<tr>
<td>Prosthetic prescription</td>
<td>Team consensus on prosthetic prescription and fabrication</td>
</tr>
<tr>
<td>Prosthetic training</td>
<td>Increase prosthetic wearing and functional utilization</td>
</tr>
<tr>
<td>Community Integration</td>
<td>Resumption of roles in family and community activities. Emotional equilibrium and healthy coping styles. Recreational activities.</td>
</tr>
<tr>
<td>Vocational rehabilitation</td>
<td>Assess and plan vocational activities for future. May need further education, training or job modification.</td>
</tr>
<tr>
<td>Follow-up</td>
<td>Life – long prosthetic, functional, medical assessment and emotional support.</td>
</tr>
</tbody>
</table>

3.2. **Modified from Esquenazi and Meier (1996).**

Researcher, found to her dismay that young trauma victims undergoing limb amputations do not meet anyone since when they are first taken to hospitals to lend a patient listening to their inner anguishes and meeting a clinical psychologist from the hospital is a far more distant cry. She further found that amputations are conducted here with no serious afterthought on part of authorities about the body and mind of the injury inflicted individuals coming for treatment. As such the victims do not enjoy psychological security, acceptance of loss of limbs, and total effective adaptation to his new self in the complex society. These facts came to light when interviewing lower limb amputated trauma victims by a semi structured interview schedule (vide appendix. A), after 2 months since their lower limb amputations. Each and every respondent mentioned unequivocally (vide result and discussion) the inadequacy of services meant for relieving and clarifying their psychological pain and doubts about the future. The researcher was astonished and pained simultaneously to see the plight of lower limb amputees at Kolkata Government Hospitals. She excluded trauma
victims visiting private clinics from her study. Hence, it was not possible for her to take a comparative account of the fate of the general bulk of the population against the backdrop of what happens to those more fortunate ones who can pay the price. Moreover according to Williamson and Schulz (1995) found that restriction of routine activities because of pain and illness was relatively more distressing in younger cancer patients than in older cancer patients. Horgan and MacLachlan (2004) drawing an analogy argued that if this is the case, younger people—in prime of their life—with amputations could also become more distressed as a result of activity restrictions than older people with amputations. Moreover, in terms of the impact of age on body image, anecdotal reports indicate that adolescents often report feeling self-conscious about their body image and are upset and bothered when people stare at them or ask those questions about their amputations. (Fisher and Hanspal, 1998; Breakey, 1997).

As evident from the writings of Horgan and MacLachlan, psychological adjustment to amputation gets hampered by depression, anxiety (including body-image anxiety), social malfunctioning and social discomfort by stigmatization of identity, self, and limitations like amputation related factors e.g. cause, level and time, (since amputation) phantom limb pain, stump pain, prosthesis satisfaction etc. Psychological adjustment to lower limb amputation gets further mediated by socio-demographic factors like gender, age, marital status, social support, personality attributes and coping modes among others. Thus, what may be referring to as psycho-social barriers in research endeavors (Mukherjee et. al. 2001. Mukherjee, 2005, 2006, 2008) deter the holistic development of adaptive behavior in orthopaedically handicapped youths (lower limb amputees). The researcher felt that such individuals in her society could be aided to realize their potentials to the fullest possible extent besides imbuing in them a sense of subjective well-being which may be labeled as a precursor to their holistic rehabilitation.

Keeping in line with the above trend of thoughts the present researcher did choose self-esteem, coping style, psychiatric morbidity, and adjustment as they are 4 important preconditions in determining sense of subjective well-being which is so much essential for enjoying quality life within the psyche of the present study group.
To meet the objective of the present study as explicitly stated in the title of the problem the researcher, decided to conduct the study in 3 phases:

**Phase 1:** Construction of a semi-structured interview schedule to unravel the experiences as well as specific problems faced by one hundred orthopaedically handicapped (lower limb amputees) two months after their amputation while they were still in hospital. The same group of amputees would be interviewed after 10 more months, i.e. one year after their amputation when they got fitted with prosthetics for at least 1 month. Phase 1 will involve processing of qualitative data by the phenomenological approach of qualitative research (Creswell, 1998).

**Phase 2:** A comparative evaluation of those 100 young lower limb male amputees between 16-22 years of age as against 100 normal youths from the same socio-economic and educational level in respect of their psychiatric morbidity, adjustment, coping styles, self-esteem and sense of subjective well-being will be conducted. In this phase while all the five study variables will be treated as the dependent variable, while lower limb amputation after trauma would be treated as the independent variable.

**Phase 3:** Here sense of subjective well-being would be treated as the dependent variable while the other four would serve as independent variables. Determination of the extents to which the 4 independent variables namely psychiatric morbidity, adjustment, coping style and self-esteem contribute to the dependent variable measure namely the sense of subjective well-being. Here, the statistic of choice is stepwise Multiple Regression Analysis.

Regarding the adaptation of a suitable design of study it became apparent that the design would be “expost facto” in nature (Kerlinger, 2000). Also, it will not be wrong to label the design a co-relational research (D, Amato, 1970). It is so because the research variables are already there within the psyche of the study and control groups. The only possible way of manipulation is by selection.
Plan of the Study

Up to this stage one could get a clear idea about the nature of the study. (Next, an attempt is made by the researcher to formulate the following hypotheses acceptance or rejection of which would help answer the research questions.

❖ H1: The sense of subjective well-being of orthopaedically handicapped youths will be lower in magnitude than that of their normal counterparts.
❖ H2: The orthopaedically handicapped youths will be psychiatrically more morbid than their normal counterparts.
❖ H3: The adjustment level will be lower for orthopaedically handicapped youths than that of their normal counterparts.
❖ H4: The coping styles adopted by orthopaedically handicapped youths will be different than from the ones adopted by their normal counterparts.
❖ H5: The incidence of positive self-esteem will be lesser while negative self-esteem will be more in the orthopaedically handicapped youths in comparison with that of their normal counterparts in society.
❖ H1-H5 is to be tested in the phase 2 of the study)

For third phase of study the following hypothesis was formed:

Psychiatric morbidity, adjustment, coping styles and self-esteem would contribute differently in making up the variances of the dependent variable, viz., sense of subjective well-being i.e. the independent variables will contribute differentially in making up the dependent variable.

Acceptance or rejection of these hypotheses according to the value of obtained statistics would lead to proving truthfulness or falsity of the corresponding research hypotheses which in turn would offer some sort of dependable inferences.

In the following section the next phases of the study such as selection of population, method of sampling, deciding upon schedule of the study, kind of data to be gathered, the modes of statistical analysis, etc are elaborated.