CONCLUSION

The aim of this study has been to provide a systematic description and analysis of the formal and informal structures using the method of network analysis. The selection of network analysis as a methodological framework is justified on the ground that it enables one to grasp the interlinkages between the various members of the organisation, while at the same time, highlighting the factors that influence such interlinkages. A superspecialities hospital (IOS) is chosen for conducting such an analysis for the unique context it provided with a high degree of professionalisation and bureaucratisation.

4.1 MAIN FINDINGS OF THE STUDY:

In our analysis of the professional, organisational and social networks, we found a certain degree of compartmentalisation with regard to the above three parameters. Though centrality seems to be the dominant factor, the actual preferences are guided by the usefulness of various categories of individuals for professional guidance and in the solution of administrative problems. While in the organisational context, administrative heads are preferred, the choice tends to be towards seniors from the same as also other departments with regard to profes-
sional matters. Thus egalitarian relationships, based on competence irrespective of the hierarchic position of the individuals, are not pronounced in this organisation. Both, functional interlinkages and professional identities, it is found, are significant in the expansion of the inter-personal area of influence cutting across hierarchic levels and occupational groups. Even social networks are influenced by centrality though they tend to be more expansive and different in their composition from the other two categories of networks. An indepth analysis of social networks has been attempted in this work.

We have started from the basic premise of several network theorists that the nature of networking is determined by the specific requirements of the individuals. We then tried to relate the patterns of network structures to the centrality of an individual and the differing professional and organisational requirements at the various levels of the hierarchy. An assumption has been made that networks being the means of establishing linkages to gain certain ends, they would differ from one stratum to the other. It is observed that senior doctors have, in addition to their professional duties, certain administrative responsibilities which require managerial skills. Since in a professional organisation each member enjoys a high degree of discretion in his work, the emphasis would be an egalitarian
interactions rather than authoritative control. Consequently, senior doctors have a need to expand their networks and establish links with strategically placed individuals at various levels. Apart from this, senior members are more sought after by the juniors because of the professional and administrative powers vested in them. Middle level doctors are well established in their profession and career and are interested in the consolidation of their professional standing through more research work. They have a small circle of friends who provide the needed support. Finally, junior doctors are mobile and not fully established either in their career or in their profession. Consequently, they have greater need to cultivate associations that would promote their interests. Our data has amply demonstrated these major trends and established the relationship between centrality, professional interests and the networking patterns.

Having placed the doctors in the overall organisational context and the implications of the same for their networkings, our attention is focussed more intensely on the network structures per se and the salience of various parameters in that structure. The analysis is carried out at two levels: (a) individual network structure and (b) organisational level structure. At the individual level networks, the emphasis is on reciprocal relationships such as dyads, chain, star, clique, etc., and the dominant forms of unilateral linkages, viz..
sociability and popularity nodes. Isolates are also discussed as a category here. Reciprocal relationships are found to be more homogeneous and cohesive in nature. Emotive factors, extending personal networks, charisma of an individual and overlapping professional, departmental and functional linkages are identified as the underlying factors for the dyads, chain, star, and clique structures respectively. Marginality with regard to the sociability nodes and isolates, is found to be a significant factor. Popularity nodes are either members or related to a clique.

When the analysis shifts to the organisational level structures, it would be possible for us to identify a core made up of the reciprocal relationships and a periphery constituting the unilateral linkages, which act as liaison links between the various sub-units in the organisational structure. The core and the periphery differ not only in their structural significance but also in the factors that are articulated in such structuring. While the former displays the inbreeding bias, is homogeneous and more exclusive in nature, the latter is less homogeneous and breaks through the exclusiveness of the core. Common affinities, identities and interests are the motives behind the reciprocal interlinkages of the core, whereas cultivation of strategically placed nodes for the achievement of one's serial, professional and career aspirations are the factors behind inter-
linkages at the periphery of the network structures.

Organisational level analysis is centred around the five distributive attributes of the networks, viz., sex, age, professional productivity, departmentalisation and caste and their significance in determining the interpersonal linkages. It is found that the sex role stereotypes determine the career selection, perceptions and interactions between men and women in the organisational context. Women who play a supportive role in the society are found to dominate the support departments of the hospital. It is interesting to note that the man-woman interaction in the organisation is restricted, leading to a divide between the male dominated main departments and the female dominated support departments. In the informal structures, women are mostly found at the outer edges of the network map with very few and weak linkages. Though minority status in terms of group size could be one of the reasons for their loose integration, yet, considering the overall social values it seems more appropriate to accept the differences as indicative of the gender differences and the accompanying social values.
Age like sex is social to an extent. Belonging to a particular age group determines the peer reference, contact and interaction. It involves a package of common acquaintances, experiences and also certain attitudes and aspirations. A significant point which emerges from our analysis is that in interpersonal linkages, age cuts across the barriers imposed by the organisational hierarchy. Thus, inter stratum interactions are facilitated by same age group interactions.

It is observed that professional productivity does not show any remarkable influence on the networking patterns. This could partly be on account of the limited relevance of the indicators of professional productivity as chosen by us in this particular organisational context. It is likely that though working in a medical specialities institute, the doctors are more medical practice oriented than medical research oriented. Consequently, reputation as a practising doctor may be having greater weightage than professional productivity as defined by us. Besides, professional productivity may be diminishing in its appeal as compared to centrality, sex, age and departmental affiliations which are overbearingly predominant.
Departmentalisation is a formal structural variable which is significant in determining the patterns of informal linkages in the organisation. Technology, organisation of work, personnel and resource inputs vary across the departments and are important factors in the networking both within and between the departments. Such of the departments which have increased specialisation among their own members and are individualistic in nature have more inter-group linkages than ingroup linkages as for example, the radiology, CPMR, and anaesthesiology departments. In the case of the departments with limited specialisation among members and which are based on team work, we observe that they are inward directed and show greater cohesiveness and dense network formation as in the department of cardiothorasic surgery. The presence or absence of a charismatic leader and functional linkages with other departments are the other factors which determine the network structures among departmental units. A charismatic leader who can rally support and mobilise resources for the department acts as a focal point of informal relationships. Functional linkages, on the other hand, integrate the various departments and strata of individuals and lay the base for the emergence of informal interlinkages. Finally, the technological base of the department, task structure and nature of intervention in the treatment process are found to be significant for the professional or bureaucratic orientation of the various departments.
Caste, a social structural variable, does not seem to be showing any significant relationship with the networking patterns probably because of the overwhelming predominance of brahmins and poor representation of the other castes in the organisation. Interestingly, it is more significant in the reciprocal relationships.

4.2 RELEVANCE OF THE FINDINGS TO THE UNDERSTANDING OF EMPIRICAL REALITY:

From our analysis it is obvious that the formal structural variables, viz., centrality and departmentalisation are determining the interpersonal interlinkages, followed by individual attributes - sex and age. Professional productivity is not showing any strong correlation to the network structures, which leads us to infer that the work culture in the IOS is more organisation oriented rather than profession oriented. Given the financial and resource constraints of the organisation, this may be understandable. But, if the interest of the management and the government is to foster a culture of 'professionalism' and 'egalitarianism', one way of doing so would be to restructure the organisation of work. It is likely ' that emphasis on inter-
disciplinary teams headed by competent individuals irrespective of their hierarchic positions would go a long way in achieving the above ideal, through redefinition of the parameters of social structure.

It may be pointed out that such organisational innovations are often made in various contexts - research and development units, universities etc. In the light of the present study which has revealed the impact of the structure of formal relationships on the informal social structures, it would be interesting to see how far such innovations influence the salience of the various parameters and the organisational work cultures.

4.3 THEORETICAL IMPLICATIONS:

Theoretically, this study draws on barney's contingency model of informal structures and Blau's parameters of social structure. It is found that Barney's observation that departments miniaturise the formal structures needs to be critically evaluated in the light of the present work. The study revealed that though the formal structure is miniaturised in the departments in terms of the hierarchic divisions and functional linkages, informal structures vary from depart-
ment to department. Thus, while cardiology department is centred around a sociometric star, the cardiothorasic depart-
ment has a clique formation. The orthopaedic department
does not have any definite structure and the support depart-
ments usually link up with related departments exhibiting
weak inter-linkages.

In the thesis, we have often drawn upon some of
the insights provided by Blau (1977). In this conclusion
we mention only three major issues identified by us. Firstly,
we address ourselves to the definition of informal organisa-
tions. It is found that they exhibit the same tendencies
and processes as the larger social organisations and are
similar to the other emergent groups like street corner
gangs, neighbourhoods etc. They differ only in the specific
context in which they emerge. Hence, the distinction of
informal organisations from the others may be seen as a
means of methodological delimitation of the area of study
rather than as denoting a qualitatively different category
of phenomena. Secondly, Blau's distinction between nominal
and graduated parameters and their intersection as the impor-
tant components in the emergent process of social structures
is not universally applicable. For instance, in our analysis
it is found that sex stereo types do not as nominal
parameters when intersected with division of labour but in fact lead to stratification and inequalities. The division of the departments into main and support departments, where men and women are predominant respectively, reflects not merely two different categories but two types of services which are graded differentially, more so in the informal status - honour evaluations. Thus, a single variable can act both as a nominal as well as a graduated parameter. Blau's claim that stratification and heterogeneity in social organisations is a function of the inbreeding bias of the graduated and nominal parameters hence needs to be reconsidered. This brings us to the third problem area - that in the explanation of social structure as emergent out of the inbreeding bias expressed by different individuals with regard to certain parameters. Mersden (1981) and Fararo (1981) observe that in addition to similarly as expressed in inbreeding bias, there is complementing which is also significant in determining inter-linkages, as for instance in marriage. We identity two other biases namely reference group bias and situation specific social-psychological bias which is residual in nature. In the former, groups of individuals consciously seek association with a certain category of individuals not because of their similarity or complementarity but because they act as reference points for certain aspirations. In the analysis of centralise as a parameter
of interaction, we find use of reference group bias more fruitful than the others. The latter refers to situationally specific social psychological factors which explain the emergence of charismatic leadership, emotive and personal factors in the networking patterns.

4.4 GUIDELINES FOR FUTURE RESEARCH:

Thus we observe that broadly, we can identify three areas of research interest for future endeavours. Firstly, more case studies of the above nature need to be carried out to build up empirical data base for the development of theoretical models. Special attention needs to be paid to the role of networkings in the inter-organisational linkages, changes in the organisational management, goals, technology, etc., since they throw light on the broader policy changes and power structures.

Secondly, larger number of middle level theories need to be developed to understand the process of informal structuring. Similarly, several middle level theories such as relative deprivation, marginality, reference group theory, role theory, etc., can be effectively utilised in the analysis of informal networks and this area needs to be explored thoroughly.
Finally, network analysis as a methodology is not being utilised fully in the Indian studies. Apart from being an interesting area of specialisation, it has great relevance in systems theory, communication studies and several other applied areas of social theory. For the same reason, more studies in this methodology need special attention and emphasis.

Thus, the present work is exploratory both in its methodology and theoretical framework. The empirical reality studied, i.e., informal networks in a professional organisation, is also a relatively unexplored area in the Indian context. The entire exercise has been highly rewarding as it provided an opportunity to tread on a new terrain.