THE IMPORTANCE OF ROLE DISTRIBUTION IN WORKING GROUPS

An evaluation of two different groups working in the same environment based on self-evaluation and observer-reported data by the use of SPGR—Systematizing the Person Group Relation

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ABSTRACT

The present thesis examines personal and group relations. Two groups served as the study context: one group of doctors and one group of nurses.

SPGR – Systematizing the Person Group Relation – was used as a framework. SPGR is a theory on how behaviour and relations develop in groups and organizations.

The purpose of the study was to investigate typical tendencies in groups to identify the prevailing functions based on the formative SPGR dimensions Nurture, Dependency, Control and Opposition.

Group sessions were held on two occasions, with both sessions being videotaped. The results were based on both self-reporting data and observer-reported data. The findings were that the nurses tended to be more caring than the doctors, in addition to the nurses having a more even role distribution than the doctors. The doctors tended to have a more distinct hierarchy in the group than the nurses. The findings in this thesis support existing theories.
PREFACE

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General aims and outline

Background

Organizational work is highly dependent on knowledge of how groups or teams operate to achieve higher levels of effectiveness, performance, profits, and desired goals for the organization. Every team, even if it is an informal group, convenes for one purpose – to solve problems and make decisions. In today’s business world, effective business groups and teams are a key ingredient to success. Therefore, it is perhaps more important than ever to understand group processes.

When people work in groups, there is also another issue than the task involved, which is the process of the group work itself: The mechanisms by which the group actually acts as a unit. However, without due attention to this process, the value of the group can be diminished or even destroyed. Being aware of the process and explicitly managing the process may enhance the worth of the group to many times the sum of the worth of its individuals. It is this synergy which makes group work attractive despite the possible problems and time spent in group formation (Blair, G. M., 1996).

Hospitals are often characterized by single individuals making great effort to accomplish the variety of everyday challenges they face in hospitals. However, such a huge organization has to coordinate all the processes going on at the same time, and a lot of different persons and departments involved complicate the coordination process. In addition, the information that is to be swapped is often very important and complicated. Sometimes the coordination process fails and, unfortunately most often the patients become the victims.

Research question and issues guiding the design

The research strategy in the present work was not to simplify the complexity of groups, but rather to highlight a broad range of factors that can have an impact on groups. The overall goal was to observe two groups over time, analyze their behaviour, give feedback, and see whether any change occurred at an individual level, group levels or both. Different data were collected to obtain a broad perspective of the data. A challenge for making observations is the critical factor of the observer not being objective, which would apparently affect the validity and reliability of the study. However, both self-reported data, and interviews were carried out to support the observer-reported data.
The study design was concerned with the following major issues:
To see how the group members evaluated themselves compared to see how the group as a unit evaluated the members. There was also analysis to be done of the group members and the group as a whole by an observer not being a part of the groups to obtain an objective analysis of the groups.
The purpose of the study was to investigate typical tendencies in a nurse group and in a doctor group working at the same hospital under the same conditions, with the expectation of the nurses being more nurturing than doctors. More specifically, this study aims to see what particular functions that seems to appear in the groups most often. In addition, the level of maturity the groups typically operated at would also be investigated.
Further, this study aims to investigate the role structure in the groups. By using the SPGR method it is possible to obtain a certain impression of both the group structure and dynamic. This will be used to investigate which type of roles are most visible in the group, whether there are certain patterns to be seen in terms of some being dominant while others are more cautious about saying something in the group.

*Theoretical and historical considerations*

This part briefly summarizes the theoretical framework that has formed the background for the work in this thesis.

*What is a group?*

Forsyth (1999) defines a group as two or more interdependent individuals who influence one another through social interaction. The definition sets no size restriction on the group. This definition is of course one among many.

No two groups are identical, however: all groups, according to Forsyth (1999), include two or more interdependent individuals who influence one another through social interaction. However, dyads possess many unique characteristics simply because they include only two members. By definition, the dyad is the only group that dissolves when one member leaves and the only group that can never be broken into subgroups (Forsyth, 1999). As early as in 1955, two persons interacting was to be considered as a personal conversation. Simmel (1955) suggested that a group arises when three or more persons interact, as the complexity in the communication between 2 persons is distinctly different from three persons communicating.
During this thesis Sjøvolds’ definition of a group will be the definition in force; “three or more persons working together to achieve a common goal” (Sjøvold, 2006). In addition, groups share certain common features like interaction, group structure, including roles, norms, interpersonal relations, cohesiveness, social or collective identity and goals.

A team is defined as a reasonably small group of people, who bring to the table a set of complementary and appropriate skills, and who hold themselves mutually accountable for achieving a clear and identifiable set of goals (M. Hick, 1983). Teams possess the basic qualities of all groups: interaction, structure, cohesiveness, social identity and goals. The concepts team and group will be used in the same meaning throughout this thesis.

Why the use of groups?

While groups provide social support, they are also the source of considerable stress for their members. Groups, too, can socialize members in ways that are not healthy and set social identity processes in motion that increase conflict between groups (Forsyth and Elliott, in press). On the other side, groups are essential to individuals, as they help their members to define and confirm their values, beliefs and identities. Groups are places where individuals can learn new social skills and discover things about themselves and others.

One of the biggest traps lies in using a group when fewer people would do it better. Lewin (1951) relied on his field theory to provide an answer whether a group is more than just a collection of individuals. Field theory assumes that the behaviour of people in groups is determined by aspects of the person and aspects of the environment. This means that a person’s behaviour is related both to the person’s personal characteristics and to the social situation in which the person finds him- or herself. Individuals are expected to behave differently according to the way in which tensions between perceptions of the self and the environment are being worked through.

However, groups are particularly good at combining talents and providing innovative solutions to possible unfamiliar problems: in cases where there is no well-established procedure, the wider skill and knowledge set of the group has a distinct advantage over that of the individual. In general there is an overriding advantage in a group-based work-force which seems to attractive management in particular, which is that it engenders a fuller utilization of the work
force, in terms of groups being able to bear a wider range of skills and experience to solve a problem.

In the case of permanent work teams, it is likely that team members will not have all the task-relevant skills at the onset. When the group is new, it is likely that members will bring narrow skills learned in their old roles. They will perhaps need to develop broader skills for the new job.

Social facilitation is the concept describing improvement in task performance that occurs as people work in the presence of other people (Forsyth, 1999). B. Dick (1999) claims that the general principles of group facilitation can be applied to most problem situations. Researchers have linked social facilitation to several personal and interpersonal processes, including arousal, evaluation, apprehension, and distraction. Zajonc (1965) notes that social facilitation usually occurs only for simple tasks. However, Triplett’s (1898) study of social facilitation suggests that people work more efficiently when other people are present. However, sometimes individuals working alone produce more alone than they would by working in a group.

And groups do sometimes fail to produce the synergistic outcomes that are expected of them, in for example brainstorming groups. The explanation appears to be that when people are speaking in brainstorming groups other individuals are not able to speak and so are less likely to put ideas forward. Moreover, they are busy holding their ideas in their memory, waiting for a chance to speak, and this interferes with their ability to produce other ideas (West, 2004). Furthermore, people may feel inhibited from offering what they see as a relatively ordinary idea after a particular creative idea has been offered by another group member.

Some people attempt to hold the floor at every chance or to speak at greater length than the topic deserves. Others give up hope by making their views known and withdraw into reticence. Those who withdraw may later refer to those who do most of the talking and decision making. From this may develop a group norm of agreeing to an apparent consensus, not risking approval by testing it.

In the 1990s, research by psychology researcher Kip Williams shed light on “social loafing” (Williams and Karau, 1991). – that is, the tendency of people in groups simply not to try as hard as individuals. However the phenomenon of social loafing is to be traced back to the
beginning of the 19th century. Working in groups sets the stage for social loafing. Some group members may choose, consciously or not, to play roles that are unhelpful to the group. The presence of others motivates us and hence often improves our work on simple problems. Social loafing appears to be a pervasive aspect of groups, and has been documented in groups working on such diverse tasks as vigilance exercises, creativity problems, job selection decisions, typing, swimming and even brainstorming. The effect seems to apply to both men and women, to people of all age, and to groups in many different cultures (Karau and Williams, 1993, in Forsyth).

Social loafing undermines group productivity. People carrying out different kinds of tasks are individually less productive when they combine their efforts in a group situation. Even worse, loafing seems to go unrecognized by group members. However, social loafing can be undone by increasing each member’s personal stake in the group’s outcome. When individuals feel that poor group performance will affect them personally, there is less a chance for loafing to occur (Brickner, Harkins, and Ostrom, 1986, in Forsyth). People are also less likely to loaf if a high-quality performance is rewarded (Shepperd, 1993, 1995, in Forsyth). However, increased involvement in the group’s tasks may prompt members to expend even more effort than they would if they were working alone.

Difficulties like social loafing present real problems for those working in teams and they challenge the common assumption that “synergy” is produced when individuals work in groups, that is, the idea that groups are more effective than the sum of the contributions of individual members (West, 2004).

**How a group works**

To describe the process that takes place in a group, Kurt Lewin (1943, 1948, 1951) chose the word dynamic. Group dynamics is the study of groups and also a general term for group processes (Forsyth, 1999). In his search for and to test hypothesis, Lewin often conducted experiments, where he manipulated the independent variable, and limited the influence of other possible causal factors by controlling the situation. Groups studied in experimental settings may not display the dynamics of naturally occurring groups. However, experimentation does provide clear tests of cause-and-effect hypothesis.

Group performance depends, in part, on who is in the group. When lone individuals work, solve problems, or make decisions, their performance depends on their personal talents, skills, and effort. When groups work, performance depends on the composition of the group: the
qualities of the individuals who are members of the group. Some groups fail because they simply do not include people with the qualities and characteristics needed to get the job done. The group performance is linked to members’ expectations about their chances of success, as motivation diminishes if expectations are low or individuals do not value the goal. Working in a group, unfortunately, can diminish both our expectations about reaching our goal and the value that places on that goal. In groups, the link between our effort and chances of success is ambiguous, because even if some work hard, others may not, and the group may fail. Moreover, even if the group succeeds, some of the members may not benefit much from the group’s good performance.

People seem to be working harder for groups they value. As Zander (1977) explains that group members typically have the choice of working for the group, for themselves, for both the group and themselves, or for neither and thus do not always choose to strive for group success. If, however, the members are united to pursue a common goal, then group-oriented motives should replace individualistic motives and the desire among members for group success should be strong (Wekselberg, Goggin, and Collins, 1977, in Forsyth). Increased unity, however, is no guarantee of good performance.

Norms are the implicit standards that describe what behaviours should and should not be performed in a given context (Forsyth, 1999): consensual lines that prescribe the socially appropriate or normal course of action.

**Group Development**

Systematizing the Person Group Relation (SPGR) is a theory on how behaviour and relations develop in group and organizations. Being aware of a process is perhaps the first step towards taking responsibility for it. In many instances it may even be sufficient to make the process visible to the individual or group. Many people and groups prefer to be effective and cooperative if they can. Their behaviour, or at least its consequences, may be unintended. Realisation may bring change in its wake. This is necessarily accompanied by a realisation of the difference between content and process.

An effective team must develop good synergy. A group working together will hopefully find creative ways to solve problems and come up with innovative solutions. Synergy comes about when gains from the team setting exceed the losses. Synergy is affected by group interaction. It is also dependent upon the group size.
According to the SPGR theory, the four dimensions of control, nurture, opposition and dependence are all necessary for a group to function, and affect the group to different degrees over time (Sjøvold, 2006). Each of the dimensions support elements that groups cannot manage without: to function properly, the group needs to agree upon some norms (dependence) and how the members are to be punished if they do not respect the norms (control). It is also important that every member is being looked after and that the relationship between the members is being maintained (nurture). In addition, to survive in the long run it is necessary to have critical opinions on how to complete and improve the tasks (opposition).

_Tuckmann_

Bruce W. Tuckmann’s theory of group development assumes that most groups move through five stages:
At stage one, the forming stage (Tuckmann, B., 1965), personal relations are characterized by dependence. Group members rely on safe, patterned behaviour and look to the group leader, if any, for guidance and direction. Members attempt to become oriented to the task as well as to one another. To grow from this stage to the next, each member must relinquish the comfort of non-threatening topics and risk the possibility of conflict.
The next stage, which Tuckmann calls storming, is characterized by competition and conflict in the personal relations dimension and organization in the task-functions dimension. Questions will arise about who is going to be responsible for what, rules, a reward system, and what the criteria for the evaluation are, which may result in discussions and perhaps conflicts. Because of the discomfort generated during this stage, some members may remain completely silent while others attempt to dominate.
In order to progress to the next stage, group members must move from a “testing and proving” mentality to a problem-solving mentality. According to Tuckmann, the most important trait in helping groups to move to the next stage seems to be the ability to listen.
In Tuckmann’s third stage, the norming stage, interpersonal relations are characterized by cohesion. When members begin to know and to identify with one another, the level of trust in their personal relations contributes to the development of group cohesion. It is during this stage of development, assuming that the group actually gets to this stage, that people begin to experience a sense of group belonging and a feeling of relief as a result of resolving interpersonal conflicts. The major drawback of the norming stage is that members may begin to fear the inevitable future break-up of the group: they may resist change of any sort.
The fourth stage, performing (Tuckmann, 1965), is not reached by all groups. If group members are able to evolve to stage four, their capacity, range, and depth of personal relations expand to true interdependence. The group members’ roles and authorities dynamically adjust to the changing needs of the group and individuals. Members are both highly task-oriented and highly people oriented. There is unity: group identity is complete, group morale is high and group loyalty is intense.

Tuckmann’s fifth and final stage, adjourning, involves the termination of task behaviours and disengagement from relationships. Concluding a group can create some apprehension – in effect, a minor crisis. The termination of the group is a regressive movement, from giving up control to giving up inclusion in the group.

Groups tend to cycle repeatedly through some of these stages as group members strive to maintain the balance between task-oriented actions and emotionally expressive behaviours (Bales, 1965). However, not many researchers are supportive of Tuckmann’s theory of stages of group development per se. One of the reasons behind not many researchers supporting Tuckmann is that he was using therapy groups in his research. His findings of the different stages might be right for the therapy groups he used in his study, but the findings cannot be generalized to groups in general.

‘Maturity’ is a central concept in connection with the SPGR concept balance (Sjøvold, 2006). To function at an optimal level the group must be balanced. Balance in the meaning of the SPGR figure is to be compared to a spinning top: it is the speed that gives the system stability and firmness, and there is in principle never equilibrium (Sjøvold, 2006).

The SPGR figure applies the concept of maturity to describe a groups’ development. A group with a high level of maturity is defined in the way that all the formative elements are equally present and all the group members manage all the elements. The opposite situation would be a group with a low level of maturity, dominated by just some of the elements and the group members tend to occupy specific roles with limited use of the elements. To illustrate, in a group with a low level of maturity, some will be the ones making the group move forward, another one will be the one making sure everybody is satisfied and so on. In a group with a high level of maturity, it is not possible to identify who is occupying which role. However, a high level of maturity is not necessary to obtain effectiveness in terms of task completion (Sjøvold, 2006).
Maturity must be seen in the context of the SPGR dimensions. If all the dimensions appear in the group, the group has a high level of maturity. If just one or few group dimensions appear the group is characterized being an immature group.

The theoretical foundation for SPGR is an integration of different schools within the field of group research. SPGR integrates elements from well-known scholars such as Bales, Lewin, Moreno, Bion, and Parson.

**Lewin**

Kurt Lewin’s (1890-1947) work had a profound impact on social psychology and particularly on our appreciation of experimental learning, group dynamics and action research. Lewin made defining contributions to a number of fields, having a major impact on how to work with groups. Brown (1988) argues that two key ideas emerged out of Lewin’s field theory that are crucial to an appreciation of group process, interdependence of fate, and task interdependence. In terms of interdependence of fate, the basic line of argument is that groups come into being in a psychological sense, not because of their members are necessarily similar to one another, rather that a group exists when people in it realize their fate depends on the fate of the group as a whole (Brown, 1988).

In terms of task interdependence, Lewin argued that interdependence of fate can be a fairly weak form of interdependence in many groups. A more significant factor is where there is interdependence in the goals of group members. Put together differently, if the group’s task is such that the members of the group are dependent on each other for achievement, then a powerful dynamic is created.

Lewin looked to the nature of tasks in an attempt to understand the uniformity of some groups’ behaviour. Lewin assumed that people may come to a group with very different dispositions, but that if they share a common objective, they are likely to act together to achieve it. This links back to what is described as Lewin’s field theory.

**Moreno**

A way of measuring the degree of relatedness among people is sociometry. It was J. L. Moreno who coined the term sociometry (Moreno, 1953). A useful working definition of sociometry is that it is a methodology for tracking the energy vectors of interpersonal relationships in a group. Furthermore, it shows the patterns of how individuals associate with each other when acting as a group toward a specific end or goal (Criswell in Moreno, 1960). Sociometry is based on the fact that people make choices in interpersonal relationships.
Measurement of relatedness can be useful not only in the assessment of behaviour within groups, but also for interventions to bring about positive change and for determining the extent of change. For a work group, sociometry can be a powerful tool for reducing conflict and improving communication, as it allows the group to see itself objectively and to analyze its own dynamics.

Bion

Bion is one of the most significant researchers for the development for what has been called the European tradition within group research. Bion’s contribution illustrated that group members have a common culture or emotionality, and this culture affects their ability to perform. Bion proposed and described three basic unconscious assumptions that appeared to interfere with task performance. The first was dependence: the unconscious and shared assumption in groups that members come together to gratify their dependency needs rather than to work. Second was fight/flight: the shared unconscious assumption, often carried out through action, that members are gathered to fight with or flee from leadership rather than to join in effective work, and third and last was pairing: the shared unconscious assumption that the group is organized to produce an ideal pair that will develop a miraculous solution to problems as opposed to facing and overcoming difficulties through collaborative effort. Bion coined the concept of the “work group”.

Parson

Parson attempted to develop a general analytic model suitable for analyzing all types of collectivities. Parsons explored why societies are stable and functioning. His model is AGIL – adaptation, goal, integration, latency – which represents the four basic functions that all social systems must perform if they are to persist. It was one of the first open systems theories of organizations, Parson defined Adaptation as the problem of acquiring sufficient resources. Goal Attainment was the problem of setting and implementing goals. Integration was defined as the problem of maintaining solidarity or coordination among the sub-units of the system, and Latency, the problem of creating, preserving, and transmitting the system’s distinctive culture and values.

He applied this model at the social psychological, structural, and ecological levels. Parsons specifies that organizations are differentiated from other social systems by their orientation toward the attainment of a specified goal.

More importantly for later researchers, Parsons distinguishes three major levels of
organizational structure: At the bottom is the technical system, where the actual product is manufactured. Above this is the managerial system, which mediates between the organization and the task environment and administers internal affairs. At the top is the institutional system, whose function is to relate the organization to the wider society. However, while Parson’s system is comprehensive, explicit and applicable at many levels, it also has many problems. It’s difficult to operationalize Parson’s AGIL variables and sub-sectors. It is more of a conceptual framework than it is an utilizable theory with testable propositions.1

Roles

Roles specify the types of behaviour expected of individuals who occupy particular positions within the group (Forsyth, 1999). People’s behaviour within a group is largely determined by their beliefs about the group and its members and their place in the scheme of things. Role clarification and role negotiation deliberately address these beliefs.

Most role-clarifying procedures are intended for the use of groups which have been functioning together for some time. Role negotiation typically occurs between two people at a time. Some roles will come quite naturally, while others may be more difficult. However, someone has to take them on. As should be clear, no single member of the group should be assigned to take on one of these roles full-time. Still, this seems to be happening quite often within groups.

Teams tend to work more efficiently when the members understand the requirements of their roles (Forsyth, 1999). In a smooth-functioning team, members know their own responsibilities, and in addition they also know the roles others perform.

Individuals’ perceptions of their personal qualities are generally accurate. Individuals who think of themselves as assertive tend to be viewed that way by others, just as warm, outgoing individuals are viewed as friendly and approachable (Kenny, Kieffer, Smith, Ceplenski and Kulo, 1996: Levesque, 1997, in Forsyth). However, sometimes individuals’ self-perception is inaccurate (Andersen, 1984, in Forsyth). An individual may believe he or she is socially skilled and friendly, when in fact he or she is interpersonally incompetent and hostile.

Groups promote self-understanding by exposing us to the unknown areas of ourselves. Although we are not particularly open to feedback about our own attributes, when several individuals provide us with the same feedback we are more likely to internalize this.

1 http://faculty.babson.edu/krollag/org_site/encycl/parsons.html
information (Jacobs, 1974: Kivlighan, 1985). Also, when the feedback is given in the context of long-term, reciprocal relationships, it cannot be easily dismissed or biased as subjective.

Several roles tend to emerge as a group becomes organized. A commonly used concept for the development of distinct roles in a group is role differentiation. Certainly, the role of a leader is fundamental in many groups, but other roles should not be overlooked. Many of these roles are similar in the way they revolve around the task the group is tackling. A group may need to accomplish its task, however it also has to ensure that the interpersonal and emotional needs of the members are met.

As roles often emerge as group members interact with one another over time, the responsibilities and expectations of any particular role are sometimes ill-defined and role takers are likely to experience role ambiguity. This means unclear expectations about the behaviours to be performed by individuals who occupy particular positions within the group (Forsyth, 1999).

In an explanation as to why task roles and socio-emotional roles merge in so many different groups, proposed by Bales (1955, 1958: Parson et al., 1953), it is suggested that very few individuals can simultaneously fulfil both the tasks and socio-emotional needs of the group. Bales’ research team identified these tendencies by tracking the emergence of task and socio-emotional experts in decision-making groups across four sessions, using his Interaction Process Analysis (IPA) to identify certain specific types of behaviour within the group. Half of the categories in IPA focus on task-oriented behaviours, while the remaining categories are reserved for positive or negative socio-emotional behaviour. Bales found that individuals rarely performed both task and socio-emotional behaviour. However, most people gravitated toward either the task role or socio-emotional role.

Sometimes group members may experience role conflict: they may find themselves occupying several roles at the same time, with the requirements of each role making demands on their time and abilities. If the expectations that define the appropriate activities associated with these roles are incompatible, role conflict may occur.

One of the important roles within a group may be the leader role. Specifying leadership is quite difficult. It is not necessarily the power to manipulate or control others. An interactional approach defines leadership as a process in which individuals are permitted to influence and motivate others to promote the attaining of group and individual goals (Forsyth, 1999). In
terms of who will be the leader in the group, most modern theories are interactional models that base predictions on the reciprocal relationship between the leader, the followers, and the nature of the group situation. Emergence is related to the leader’s personal qualities.

**Influence**

An individual is free to think and act as he or she chooses, however group members must abandon some of their independence. Groups influence their members. Power is the capacity to influence others, even when these others try to resist this influence. Tactics people typically use when they influence others include promises, threats, persuasion, manipulation and disengagement. Which tactic we use to influence others depends on both the nature of the setting and our personal qualities (Forsyth, 1999).

It was Salomon Asch’s studies of conformity that offered the most convincing evidence of the power of a group (Asch, 1952, 1955, 1957).

In 1958, Asch found that one of the situational factors that influence conformity is the size of the opposing majority. Apparently, people conform for two main reasons: because they want to be liked by the group and because they believe the group is better informed than they are.

Status patterns are often hierarchically centralized and status relations are the stable distributions of authority or prestige in the group (Forsyth, 1999). The power holders are often at the top of the hierarchy, and they often make more decisions, and serve as the foci for communication within the group. Below the top level, there is typically a member with less power than the leader, but with more power than the average members.

The development of authority relations within groups, called status differentiation (Forsyth, 1999), violates the expectations of equal treatment for all. Initially, group members may start off on an equal footing. But over time, status differentiation takes place, which means that certain individuals acquire the authority to coordinate the group (Bales, 1950). Who stays on top, and who remains at the lower levels, depends on the individuals and the group.

Individuals do compete for status in their groups. However, their status-seeking efforts will be for naught if the group rejects their claims.

Different group members respond to influence in different ways, as some tend to conform more than others. These variations often reflect differences in age, personality, and expertise (Forsyth, 1999).
Through the differentiation process, the development of authority relations within groups (Forsyth, 1999), most groups develop a stable pattern of variations in the distribution of authority or prestige in the group.

In some instances, people compete with one another for status in the group. Individuals who tell others what to do, and confirm others’ statements, are often more influential than individuals who display cues that signal submissiveness. Group members’ perception of one another determines status.

However, groups conform to no single procedures. Some groups are leader-centered, whereas others are group focused, and the group’s activities can range from highly structured to the unstructured (Forsyth, 1999).

Given the diversity of purposes and procedures, one might expect some types of groups to emerge as more effective than others.

The majority of persons abandon radical ideas and conform. From the minority’s perspective, change takes place when the majority re-examines and possibly revises its position.

But, individuals in any group change their behaviour for a variety of reasons. Through social influence from discovering new information about a situation by observing others’ responses, people can make decisions and form opinions. Social comparison theory assumes that group members, as active information processors, treat other people’s responses as data when formulating their own opinions and making decisions (Forsyth, 1999).

**Cohesion**

Lewin used the term cohesion as early as 1943 to describe the forces that keep groups interacting by pushing members together and countering forces that push them apart.

Festinger and his colleagues formally defined cohesion as the total field of forces which act on members to remain in the group (Festinger et al, 1950).

The strengths of the bonds linking the members to one another and to their group – its group cohesion, define its unity, and solidarity (Forsyth, 1999). Cohesion is group unity. However, different groups achieve cohesiveness in different ways. Cohesion exists in a group when every person understands, accepts, and identifies with every other person (Dick, 1991). This can happen only when group members react to each other as people, not as stereotypes or labels or roles. However, there are two preconditions. First, that group members are able to speak about their attitudes and feelings towards the group and its members. Secondly, that they are listened to, and understood, when they do so.
An important point is that what is natural self-revelation for one group of people may be seen as intrusive and threatening by others.

In most instances, cohesion is associated with increases in member satisfaction and decreases in turnover and stress.

However, many theorists believe that cohesion has more to do with members’ willingness to work together to accomplish their objectives than it does with positive interpersonal relations or feelings of unity.

All groups require some modicum of cohesiveness, or else the group would disintegrate and cease to exist as a group (Dion, 1990, in Forsyth). Without cohesion, feedback would not be accepted, norms would never develop, and groups could not retain their members.

Cohesiveness also has its drawbacks. When reaching high levels, cohesiveness limits the amount of dissent in the group to the point that internal disagreement, which is necessary for good decision making, disappears. And in some extremely cohesive teams, the members may become so wrapped up in the social aspects of the group that interaction becomes the primary goal.

Researchers have also clarified why cohesion may inhibit group performance. Janis (1963) believes that conformity pressures are so great in cohesive groups that members cannot engage in critical debate, and cohesion also increases members’ desire to protect the group from threats.

However, not all forms of cohesiveness are detrimental. Groups deriving their cohesiveness from members’ commitment to the task rather than from their friendship with other group members displayed significant fewer symptoms of groupthink, whereas groups being interpersonally cohesive displayed more symptoms (Bernthal and Insko, 1993, in Forsyth).

Researchers also note that cohesion even increases decision-making effectiveness in many cases.

The definition by Skårdal (2002) opens the way for the fact that groups and the task they are to solve are not always compatible: “Cohesion is the expression of a groups’ ability to balance the forces interacting in the group while striving to realise a particular goal”. There is no right answer for what an effective group is, and the group that is always best does not exist. There are these particular forces that can be seen in connection with the formative group functions (Nurture, Control Dependency, and Opposition) and to what degree they are balanced (Synergy versus Withdrawal).
**Decision making**

When people need to make important decisions, they often turn to groups. Group decisions are often superior to an individual’s, as groups can process more information more thoroughly. Two heads are better than one, as two heads can store more information. But two heads are also better because they can collaborate when creating the memory and when refreshing the memory from time to time.

Groups do not, however, always make good decisions. Groups often spend too much of their discussion time examining shared information. The usefulness of group discussion is limited in part by members’ inability to express themselves clearly and their limited listening skills. Groups sometimes even use discussion to avoid making decisions.

Janis (1972) coined the term groupthink to describe the premature concurrence-seeking tendency that interferes with effective group decision-making. Groupthink is a distorted style of thinking that renders group members incapable of making a rational decision (Forsyth, 1999). Janis identifies a number of causes including: cohesiveness, working in isolation, biased leadership and decisional stress.

**Polarization and Conflict**

Polarization and conflicts arise when individuals or groups become aware that they disagree, or that their goals deviate, although the two concepts should be separated.

Polarization within a group is the tendency of new formations to develop within the group in terms of sub-groups or individuals by different poles, each representing their viewpoint. Gentle and shifting polarization is usually a positive factor within groups, and even relatively strong polarization is not necessarily damaging in a group, even when experienced as unpleasant by the group members. Whereas a conflict is often characterized by a shift in focus away from the original disagreement, in addition, the perception of ‘the others’ is constant and stereotyped.

Conflict is a natural consequence of joining a group. Groups bind their members and their members’ outcomes together, and this interdependence can lead to conflict when members’ qualities, ideas, goals, motivations and outlooks clash. Conflict implies disagreement and friction in the group, and conflicts occur when the actions or beliefs of one or more members of the group are unacceptable to and resisted by one or more of the other group members (Forsyth, 1999).

When a conflict arises, the conflict is prevailing, and the groups’ norms are not being practised. A conflict cannot be solved by the group itself, but will be in the need of external
expertise. If the group is capable of solving the ‘conflict’, there is by definition a strong polarization and not a conflict.

Conflict takes time to develop, which means that groups whose paths cross repeatedly are more likely to end up locked in conflict than groups that have limited interaction. Similarity among group members seems to increase interpersonal attraction, while dissimilarity tends to increase disaffection and conflict (Renbaum, 1986). The relationship between disaffection and conflict explains why groups with greater diversity sometimes display more conflict than homogeneous groups. Just as any factor that creates a positive bond between people can increase a group’s cohesion, so any factor that creates disaffection can increase conflict. In many cases, people explain their conflicts by blaming the other person’s negative personal qualities, such as incompetence and moodiness (Kelley, 1979). People usually dislike others who evaluate them negatively, so criticism, even when deserved, may generate conflict (Ilgen, Mitchell, and Frerikson, 1981, in Forsyth). Also, group members who treat each other unfairly or impolitely engender more conflict than those who behave politely (Ohbuchi, Chiba, and Fukushima, 1996, in Forsyth).

Conflict is more likely when group members, instead of working with one another to reach common goals, compete against each other for such resources as money, power, time, prestige or materials. Few people can deal with conflict dispassionately. When disputes arise, tempers flare, and this increase in negative emotions exacerbates the initial conflict. As conflicts escalate, group members often become more committed to their positions instead of more understanding of the position taken by others. When people try to persuade others, they seek out supporting arguments, and if this elaboration process yields further consistent information, they usually become more committed to their initial position (Petty and Cacioppo, 1986). Moreover, people feel that once they commit to a position publicly, they must stick with it. They may even realize that they are wrong, but to save face they continue to argue against their opponents (Wilson, 1992, in Forsyth).

Just as conflicts escalate when group members become firmly committed to a position and will not budge, conflicts de-escalate when group members are willing to negotiate with others to reach a solution that benefits all parts of the group. Negotiation is a reciprocal communication process whereby two or more parties to a dispute examine specific issues, explain their positions, and exchange offers and counteroffers (Forsyth, 1999). Individuals’ reactions during conflict are shaped by their perception of the situation and the people in that situation. Many conflicts are based on misperception. People often assume that
others are competing with them, when in fact those others only wish to cooperate. Most experts on group communication agree that misunderstanding seems to be the rule in groups, with accurate understanding being the exception. Too many members simply lack the skills needed to express themselves clearly. They fail to make certain that their verbal and nonverbal messages are accurate and easily decipherable and thereby unintentionally mislead, confuse, or even insult other members (Gulley and Leathers, 1977). Group members can undo perceptual misunderstandings or make them less likely to occur by actively communicating information about their motives and goals through discussion. Group members cope with conflict in many different ways. Some just overlook the problem and hope it goes away. Others discuss the problem, sometimes dispassionately and rationally, and sometimes angrily and loudly. Others seek a neutral party to serve as a moderator.

Bales
To be able to better understand effective leadership, group dynamics, and superior team performance, Bales’ SYMLOG system was developed. SYMLOG is an acronym for a “System for the Multiple Level Observation of Groups”. Bales (1979) did not aim to eradicate differences, rather to understand them. And he repeatedly emphasizes that the mental processes of individuals and their social interactions take place in systematic contexts which can be measured. The results of the research include a comprehensive theory of social interaction, a highly refined measurement system and a set of precise tools for analyzing and improving effectiveness for people who live and work with groups of all sizes.

SYMLOG as an instrument containing 26 descriptive items which probe and assess key factors known to directly influence effectiveness. Furthermore, SYMLOG is a method for repeated measures and ongoing feedback for continuous improvement. Repeated measures and feedback help to guide and sustain development efforts. And when applied properly, increasing effectiveness becomes the goal. Improvement becomes standard, and higher performance is the outcome.

SYMLOG is applicable at multiple levels, as it can be used for both individual development, and for teambuilding, as well as for the organizational culture within which the team works and the leader interacts.

As a part of the SYMLOG process, individuals complete brief survey questionnaires which are used to produce graphic displays and computer-generated reports for feedback.
Through discussion of the survey results facilitated by SYMLOG consultants, participants
develop mutual understanding of the way they perceive themselves, others, and their
organization. Ideally, they also learn what alterations are necessary in order to become more
effective.
The SYMLOG process greatly increases the probability that when individuals try to improve,
their efforts will be successful.²

SPGR consists of several instruments and analysis that give high flexibility when used with
individuals, groups and organizations (Sjøvold, 2006). SPGR is also a powerful method
supported by several instruments for mapping and developing work-relations, teams and
organizational culture. SPGR as an instrument is based on more than 50 years of research and
is a functional synthesis of the most prominent theories in the field of organizational and
small-group research that have been developed and tested.
The SPGR figure is based on the interaction between the four dimensions of control, nurture,
opposition and dependence, and in addition, two indicators of the firmness and flexibility of
groups: synergy and withdrawal. These six elements constitute the formative dimensions in
the SPGR figure.

Method

General outline and design

The empirical work in this thesis is based on an observation made to analyze personal – and
inter-group – relations.
The purpose of the design was to systematize person – and group – relations by focusing on
roles and how different roles were distributed among group members.

Two groups served as the study context. These groups were assigned at a presentation
meeting by master’s-thesis students and their supervisor, where the students informed the
doctors and nurses about the topic of their thesis. The head of department was the connection
between the study groups and the students.

² http://www.symlog.com/internet/what_is_symlog/what_is_symlog-01c.htm
The primary outline was to make a visual picture of the groups’ interaction with the purpose of giving the groups feedback on the findings.

The participants were allocated to the two groups based on their occupation. Except for occupation, there was no control in terms of personality, age, sex, or background.

The observer was a 28-year old student in psychology, together with a co-student who was to use the same data.

Group sessions were held on two occasions (Day 1 and Day 2), with a time interval of two and a half weeks. Two sessions were conducted on Day 1 (one observation session and one task session) and two sessions were conducted on Day 2 (one observation session and one task session). The meetings were held at various times of the day, with the nurses meeting at midday and the doctors at the end of the day, for the reason that the doctors were held up with surgery. None of the groups were tested before the interventions.

Between Day 1 and Day 2, some of the members from each of the groups participated in a group-dynamic course over two days related to the tasks the participants did during Day 1 and Day 2. The head of department, four nurses and three of the surgeons attended the group-dynamic course.

On Day 1, both groups met in a small room at the hospital, seating eleven persons around the table. Before the groups arrived, the chairs and table were set up so that all the participants would be captured by the camera. There was free seating. The two observers were sitting behind the camera. The camera was positioned in the same place during the day.

The group members were given numbers (P1, P2, P3 and so on) for the purpose of the SPGR analysis of the videotapes later, and to keep their names anonymous.

All the sessions were videotaped. All the participants had agreed upon being videotaped before the sessions started with the head of department. Still, at the beginning of each session the participants were promised that the film was for the use of research material only, the participants were assured absolute confidentiality, not only to encourage honest responses from them, but also to assure ethical responsibility.

The participants were informed that after the meetings they would be asked to submit a questionnaire evaluating themselves and the other group members based on that specific meeting.
The nature of the task was described just before each session, and the groups were also informed of the time limit for the session. The groups were given their assigned tasks by both spoken and written instruction. It is assumed that the process described above met high standards of ethical conduct.

**Task**

The questionnaire (see appendix I) consisted of 24 items that are often used describing different sets of values that could be expressed in working environments. For each of the 24 claims, the participants were to decide whether a specific value or several values were expressed by themselves or the other group members during the meeting. The participants could rate the claims on a 3-point scale, ranging from 0 – rarely – to 2 – often.

The participants responded to the same questionnaire after the meeting on both Day 1 and Day 2. To make sure that all the participants completed the questionnaire, and to explain things if necessary, the experimenter stayed in the room with the participants, except from one occasion when the nurses had to leave the room because of duties. In general, when completing the questionnaires the nurses tended to be more accurate than the doctors. However, the nurses and doctors got the same instructions.

**Sources of data**

Data were collected at two different times, by both videotaping and completing the questionnaire. In addition, 4 participants, two from each group, were interviewed before the second task. The following sets of data were obtained:

- The participants judged themselves after each meeting
- The participants judged each other after each meeting
- The observer judged the participants from the videotapes from both meetings by using SPGR.
- 4 semi-structural interviews, 2 nurses and two doctors (see appendix II, III, and IV)

There is considerable support for using both self-reported data and peer-reported data for gathering information about behaviour. However, both are subject to distortion (Dawes, Faust & Meehl, 1989). Observations can be distorted by how the observer obtains, records, and evaluates the data. However, the reliability may be at acceptable levels based on trained observers.
The data was collected and calculated and then the data were systematized by the use of specific SPGR data programs and SPGR analysis.

**Specific Methods**

**Participants.** One group of doctors (mixed-sex, 11 persons, attending doctors and residents), and one group of nurse managers (female, 5 persons), each one in charge of different departments at the hospital.

The overall department consisted of 14 doctors, divided into two subgroups of 7, each subgroup functioning as the leading group on two different hospitals. One of these groups, working at one of the hospitals, hospital 2, served as the overall study context together with the 5 nurses also working as the same hospital. The doctors were a mix in terms of some having worked at the hospital for years while others, particularly the resident doctors, had been working there for as little as one year. The nurses had been working together for several years and knew each other very well.

An attending doctor is the doctor who leads the health care team and has overall responsibility for the patients’ care while they are in the hospital.

Residents are licensed doctors who receive additional specialty training. During their residency program, they provide care under the supervision of the attending doctor.

Nurse managers are responsible for the overall leadership of particular units at the hospital.

**Procedure**

**Nurses Day 1.** The nurses (3) and the head of department arrived a few minutes before the session was to start. As the observers had already met the group members at the presentation meeting, there was no need for any further presentation; however, the head of department who was in charge of the meeting gave a short introduction before the meeting started. It was repeated to the participants that the videotapes would only be used for observational purposes later, and that the two observers would be the only persons to watch the tapes.

In the first part of the session, the observers just observed the group members in their natural setting. The topic for the meeting was set by the head of department. The meeting went a little overtime, and when the meeting was over the participants were asked to complete the questionnaire, evaluating themselves and the other group members based on the meeting. They were given both spoken and written instructions before leaving the room. The questionnaire was collected immediately after the participants had completed them.
Doctors Day 1. The doctors did not arrive at the scheduled time and the meeting was a bit shorter than planned. Several of the doctors who were to attend arrived late or did not arrive at all. Some left the meeting room and came back later. However, the meeting went ahead as planned. Some of the doctors had not been present at the student presentation, and a small presentation was necessary before the meeting could start. The observers made a small presentation about themselves before declaring the purpose of the study. The videotaping was declared to the participants by head of department beforehand. One of the nurses not present at the nurses’ meeting attended this meeting. This nurse assisted the head of department in daily work at the hospital.

At the first visit to the hospital, the head of department was very honest about being allied with one of the influential doctors working at the hospital. The head of department considered this as important to attain the respect necessary from the other doctors in an easier way than by not having an ally in the group. This particular attending doctor arrived halfway through the meeting and the group dynamic changed significantly as this person entered. The attending doctor talked much more than the others and it was clear that this doctor is an influential person among the other doctors. The doctor was allowed to display this behaviour both by the head of department and the other group members.

As two of the doctors had to leave, they were given the questionnaire before the end of the meeting. These two doctors were just given written instructions. The meeting was ended by the observers and the participants completed the questionnaire. The observers stayed in the room to make sure the participants understood the task, and to answer any questions. However, there was some resistance in completing the questionnaire from one of the attending doctors, being the same doctor who joined the group midway through the meeting. Despite some resistance the doctors were kindly asked to complete the questionnaires. As this doctor was obviously an influential person, the other group members’ questionnaires might have been biased in terms of the group members not making an effort to complete the questionnaire properly. In addition, the participants had to complete evaluations of twelve persons including themselves, which is time-demanding, and this was at the end of the day. As this particular influential attending doctor arrived late, it should have been possible to see a change in the group dynamic after this doctor joined the group. To see a possible change in the group dynamic, the meeting was split in two parts. The split was made according to when the particular attending doctor joined the meeting. This split was very interesting in terms of obtaining data for investigating group dynamics within one group. The analysis could
investigate the group with and without the influential doctor being present, and whether the
distribution of roles in the group tended to change.

All the participants, both nurses and doctors, completed the same questionnaire. The
questionnaire was to be completed individually. However, the doctors completed the
questionnaires so poorly that they were of no use.

Day 2. Before the meetings started on Day 2, the observers carried out 4 interviews with two
of the nurses and two of the doctors who attended the meetings on Day 1. Both the nurses had
attended the group dynamic course. The interviews were semi-structured and lasted for
approximately 30 minutes. The four participants agreed to the interview being recorded before
the interview started and they were informed about the purpose of the interviews and that
recording was for the purpose of research material only. The participants were assured
absolute confidentiality.

These data were to be used as background information. The interviews were to be used to
support the other data and to give a broader perspective of the groups, the meeting situations
and the persons who attended the meetings. These interviews were very helpful in the process
of understanding the groups. Detailed information about the group processes and group
members were revealed during the interviews. All the interview were taped.

Nurses Day 2. The nurses and the head of department arrived a few minutes before scheduled
time for the meeting. The tables and chairs were set by the observers when the nurses arrived.
The meeting started and finished at the scheduled time. All the participants from the meeting
on Day 1 attended. In addition, two more nurses attended the meeting on Day 2, one of them
being the nurse attending the doctors’ meeting on Day 1, and therefore being familiar with the
observers and the study. This nurse was one of the nurses being interviewed, and was picked
particularly because of having attended the doctors meeting. By doing an interview with a
participant attending both meetings it was possible to ask about similarities and differences
between the two groups.

The other nurses got a brief introduction by the head of department. After the meeting, the
participants completed the questionnaire in the room while the observers were present. All the
questionnaires were completed properly.
Doctors Day 2. The doctors did not arrive at the scheduled time for the meeting, and just a few doctors were present as the meeting started. There was a brief introduction by the head of department about the observers’ purpose for being present and videotaping the meeting. It was repeated that the videotape was for research material only.

During the meeting several more doctors joined. Altogether, the group was similar to Day 1. However, two of the doctors who attended the meeting on Day 1 were not present on Day 2. And two of the doctors attending the meeting on Day 2 were not present at the Day 1 meeting. The nurse attending the meeting on Day 1 was not present, as that nurse joined the nurses’ meeting at Day 2.

The meeting was stopped by the observers approximately five minutes past the scheduled time, and the participants were asked to complete the questionnaire, however the discussion continued after the completion of the questionnaires. Because of the number of participants attending, the participants completed the questionnaire judging themselves and four of the other group members. This was organized by the observers during the meeting, and the participants were given the names of whom they were to judge by the observers.

The attending doctor being resistant to completing the questionnaire after the meeting on Day 1 was joking and being a bit resistant about completing the questionnaire after the meeting on Day 2 as well. This doctor being an influential person, this might have affected the other participants in not making a thorough effort when completing the questionnaire. However, the participants were kindly asked to complete the questionnaires without talking to each other. One attending doctor chose not to complete the questionnaire.

The head of department was in a hurry after the meeting and had to leave before completing the questionnaire. This questionnaire was to be sent to one of the observers later. Overall the questionnaires were so poorly completed that they were of no use, despite that the task was made easier in terms of the number of group members to evaluate being fewer than Day 1. This decrease in the number of group members each doctor was to evaluate was done in an attempt to obtain properly completed questionnaires.

Speaking fluent Norwegian. Nearly all the participants were Norwegian, except two of the doctors, who struggled language-wise. One of them understood everything being said, but had trouble expressing opinions during the meeting, the other one did not understand everything being said, although this doctor was speaking fluent Norwegian. The one having trouble expressing opinions during the meeting would not complete the questionnaire. However, this doctor is reported in the observer-reported data.
Tools

The SPGR tool played an important role in this study. To ensure the quality of the measurements, the two observers spent two months practising the use of the present encoding system (SPGR) as a tool and preparing the observation sessions. All the SPGR categories were studied thoroughly. This was of importance to both the performance and the maintenance of the tool, to use it in the right manner.

The observers encoded episodes of “Etaten”, a Norwegian comedy divided into 8 episodes, and then the results were compared to ensure that the codes being used were similar and to discuss different solutions and come up with an agreement. The results were also discussed with the supervisor. Both the category chosen and the time interval for the coding were of great importance. However, the main experiment was carried out after the training period.

Experience from the use of IPA (Interaction Process Analysis, Bales 1951) and SYMLOG say that during active observation there will be a limit of 12 categories an observer can manage to differentiate. This is considered when developing the SPGR observation program (see appendix V).

For a detailed declaration, see the SPGR manual (Sjøvold, 2002); also belonging to the declaration is the data-program-supporting observation and how to estimate the statistics.

In the SPGR observer program, every transaction of value for the group dynamics is registered. This kind of observation can provide valuable information about the groups’ dynamic, in addition to identifying typical traits about the interaction patterns of the group (Sjøvold, 2006).

One has to act fast to catch all the sometimes small and important details during the film. The encoding practising proved most helpful. Scoring persons in a group is quite a demanding task, and scoring several persons at the same time is an even bigger challenge, as it is easy to miss out on some of the persons at times when more than one person is saying something or implying something by using body-language or facial expressions. However, by knowing all the categories thoroughly it was possible to act very quickly in terms of picking the right category. After the meeting on Day 1, the groups were divided into smaller subgroups when scoring the groups’ behaviour. This was more time-demanding, and not necessary, but at this stage and by doing it this way the result was very accurate, as watching fewer participants at the time made it easier to catch all the details.
When encoding the videotapes from Day 2 the groups were not split into sub groups during the encoding as the encoding was going very well.

SPGR is the most radical development based on SYMLOG, and SPGR integrates both the theoretical foundation of Bions’ theory and Parsons’ pattern variables (Sjøvold, 2006). There are basically two SPGR scales: one ‘behaviour scale’ for the use of describing persons’ behaviour, and one ‘value scale’ for the use of describing more abstract levels such as the group-culture, perceptions of a particular situation, etc.

SPGR theory systematizes different behaviour in relation to which group function the behaviour supports. Every category has its own colour:

- Blue (Control): behaviour interpreted as goal-oriented, effective, directing, or conforming
- Green (Nurture): behaviour interpreted as caring, open, warm, and spontaneous
- Red (Opposition): behaviour interpreted as critical, provoking, or unmindful
- Yellow (Synergy): behaviour interpreted as engaging, willing to cooperate, understanding, or constructive
- Grey (Passivity): behaviour interpreted as submissive, unclear, or enclosed

This SPGR scoring program (see appendix V) can cope with groups containing up to 20 persons at the same time. Each person in the group is given a number from 1 to 20, depending on how many persons are in the group. For movement or speech of importance, the observer is supposed to plot which person is saying/doing something particular, to whom, and then score one category out of twelve possible, saying something about the saying/doing. The main categories are Control, Opposition, Nurture, Synergy, Withdrawal, and Dependency. In addition, the observer should score whether the person is doing something verbally or non-verbally.

To be able to systematize the participant scores, it is essential to be consistent about the same persons representing the same number or letter throughout all the scoring sessions. This was thoroughly systematized, and each participant in each of the groups is described by the same number or letter throughout the study.

The balance between the categories of the different transactions being addressed by each person is the foundation for deciding what kind of role the person expresses in group, and this role can be illustrated in the SPGR ‘room’, based on the observer-reported data. These data can also be compared to the questionnaires.
Analyzing the data proved to be challenging, but absolutely manageable. A SPGR touch-screen computer was to be used. As the touch-screen was not operative, the SPGR program was installed in a regular computer which did not have a touch-screen. However this should not have affected the results.

The scoring on the real groups was somewhat more difficult than the program scored during exercising on using SPGR. Scoring the real groups, when the persons were often talking more than one at a time, and there being other persons whose body-languages one had to watch in parallel, the process becomes much more complicated. However, by watching and encoding the videotapes several times the final result should be reliable considering the significant details were disclosed. Catching to whom the participants were actually addressing their transactions was also much easier after watching the films several times.

The videotapes were coded several times and the average scores for the coding results were used. Spending a lot of time working on the observer reported data proved to be successful in terms of coherent findings.

**Results**

The analyses examined both observational data and questionnaire scores at both an individual level and group level of both the nurses and the doctors.

To reiterate, the purpose of the study was to investigate typical tendencies in the nurse group versus the doctor group. More specifically, this study aims to see what particular functions that seems to appear most often in the group considering the four SPGR functions of Control, Nurture, Dependence, and Opposition. In addition, the level of maturity the groups typically operated at would also be looked into.

Further, this study aimed to investigate the role structure in the groups. By using the SPGR room, it was possible to obtain a certain impression of both the group structure and dynamic. This will be used to investigate which type of roles are most visible in the group, whether there is a certain pattern to be seen in terms of some being dominant while others are cautious about saying something in the group.
By mapping the groups’ role structure, the SPGR program develops a graphic picture. To obtain the role structure, each person in the group is drawn as a circle in the same diagram (the SPGR room). The circle size varies, and indicates to what degree each person influences the group. A person being dominant and taking up a lot of space in the group will typically be illustrated as a bigger circle than the others. The circle size is estimated by taking both the frequency analysis and type of transaction the participant has been addressing into consideration. The location of the circles in the diagram shows which of the SPGR dimensions that tend to appear most frequently by each participant. The circles are placed in the diagram based on three values (X,Y,Z), all ranging from -18 to 18. The X-value tells where the circle is placed from right to left in the diagram, with low values being to the left and high values to the right, with the 0-value being in the middle of the diagram. The Y-value tells where in the diagram from bottom to top the circle is placed, with low values on the bottom and high values on the top, with the 0-value in the middle. And the Z-value tells the circle size. This value is also based on the frequency analysis. Based on the circles in the diagram which are coloured blue, green, red, yellow, and grey, together with the other factors, it is possible to see the shape of the group structure and dynamic.

Nurses and Doctors, Day 1

Nurses’ Meeting Day 1. Three of the nurse managers and head of department attended the meeting, with head of department leading the meeting.

On Day 1, the nurses are not placed in a cluster in the SPGR room (see figure 1), nor are they placed far apart. Considering the circle sizes, circle C is significantly bigger than the other circles, and placed in the blue control field, although still close to the green field. The other participants are all touching the green nurture field, with a tendency close to the blue field. The frequency analysis (see table 1) shows that the transactions addressed in the group are not evenly distributed.

As can be seen in table 1, some of the participants have very few transactions between them during the meeting, however most of the transactions involve participant P3. Participant P1, P2, and P4 have just a few transactions between each other. The typical tendency in the group is that P3 is in dialog with each of the other participants, and all together, participant P3 is involved in 95.4 percent of the transactions in the group. This tendency implies that participant P3 is a dominant person in the group. This can be seen in connection with the
SPGR room (see figure 1) and the circle size of circle C (circle C = P3), which supports the idea of participant P3 being a dominant person in the group. More than 60 percent of the transactions are group-related, which means that the participants address most of their transactions to the group. Participant P1 is the one addressing the least transactions; however, the score is not significantly different from the other participants, except P3.

*Doctors’ Meeting Day 1.* Nine doctors, one nurse and the head of department attended the meeting, with the head of department leading the meeting.

As can be seen in figure 2, the overall tendency from the meeting is that the doctors tend to be unified in the blue control field. However, several of the group members tend to be withdrawn, not participating in the group discussion. This is illustrated by the grey circles, with a z-value < 0. Participants E and F are illustrated with the biggest circles, implying that they are the most dominant persons in the group at this stage of the meeting.

As shown in figure 3, the group is not placed in a cluster, but is rather separated, with some of the circled being close. Participant E is dominant in terms of the circle size, implying that this person is addressing more transactions than the others in addition to the tendency of being red, as person E is quite close to the line separating the red and blue fields. Participant F is also taking up a lot of space in the group, although this participant is closer to the line separating the blue and green fields.

As can be seen in figure 4, the group tends to act as a more unified group after the influential doctor has joined the group. This is illustrated as a more distinct cluster pattern in figure 4 than in figure 3. Participant B, being the influential doctor, can be seen in the middle of the cluster. The most significant difference is participant E, who was illustrated with the biggest circle before participant B joined the group. Participant E is illustrated with a significantly smaller circle in figure 4, implying that participant E is more withdrawn when participant B being present.

The same tendency as among the nurses is to be seen among the doctors in terms of the transactions addressed in the group not being evenly distributed (see table 2). 39.9 transactions are made by participant P4 alone to another participant or to the group. Another number to take into consideration is P10, addressing 16 % of the transactions. An important
issue considering participant P10 is that this participant was present for 35 out of 60 minutes of the meeting, still participant P10 addresses 16% of the transactions. Participant P3 who is actually the person illustrated with the biggest circle at part one of the meeting – before the influential doctors join the group – ends up at a total of 10.7% of the total transactions made during the meeting, which means that participant P3 cannot have contributed significantly in the second half of the meeting, as the transaction score would have been higher. Participant P4 is basically addressing all the transactions to only four of the other participants (P3, P5, P6, and P10), in addition to addressing transactions to the group, which implies that participant P4 does not engage with the whole group.

Nurses and Doctors, Day 2

Before the meetings on Day 2, four participants were interviewed – two nurses and two residents – all of them having attended the meeting on Day 1 (see appendix II, III and IV). The interviews supported the findings from the meetings on Day 1.

Nurses Interviews. The nurses did answer the questions differently from the doctors, being able to express themselves using SPGR expressions, however the nurses had attended the group dynamic course using SPGR expressions during the course, while the doctors did not. The two nurses’ interviews were very coherent.

Doctors Interviews. The residents’ answers were not coherent to the same level as the nurses, as the residents varied in their answers. Among other things, one of the residents said there was a distinct hierarchy among the doctors, resulting in some of the doctors withdrawing on some occasions, while the other resident did not see that anybody would ever withdraw because of hierarchy issues in the group. These interviews imply that people do interpret differently. All the interviews were based and the participants’ subjective opinions.

Nurses’ Meeting Day 2. Interviews with one of the nurses predicted that P1 would perhaps be upset about the topic of the meeting. As shown in figure 5, this prediction came true during the meeting, as this nurse is illustrated as A (= P1). From the meeting on Day 1, this nurse is now illustrated with an increased circle size. From being in contact with the green field at the Day 1 meeting, the nurse is now located at the blue field with no contact to the green field. This fact supports the interviews, saying that the nurses knew each other well, but were not afraid to stand up for issues they felt committed to.
From the meeting on Day 2, the same tendency as in the meeting on Day 1 can be seen, however the group has moved from the green field towards the blue field, and the group is also moving more in the direction of the red field on Day 2 than was the case on Day 1.

As can be seen in figure 1 and figure 5, the same tendency as on Day 1 evolved during the meeting on Day 2. Two more participants attended the meeting on Day 2, however participant P3 still addressed more than 40 percent of the transactions (see Table 3), supporting the indication from the meeting on Day 1 that participant P3 is a dominant person in the group. Participant P1, who addressed the lowest numbers at the meeting on Day 1, now has the second-largest amount of transactions, after P3.

P1, however, increased the amount of transactions from 16.5 percent on Day 1 (see table 1) to 22.7 percent on Day 2 (see table 3). The tendency in terms of participant P3 being in a dialog with each of the other participants, as on Day 1, can still be seen. The distribution of the transactions not involving P3 is however differently distributed in the Day 2 meeting. Participants P4 and P6 tend to be withdrawn, contributing to no more than 6.7 percent of the transactions together, compared to P3 addressing 17.3 percent of the transactions at the meeting on Day 1, being the second largest amount of transactions after P3.

These findings from Day 2 are different from Day 1, as all the participants except P3 have changed significantly in percentage transactions being addressed.

Both interviews with the nurses reveal that the nurses tend to take on different roles when in group settings depending on the particular topics of the meeting. This implies that the nurses group is operating at a mature level.

As the doctors’ questionnaires were of no use, a decision was made to use the nurses’ questionnaires only. The doctors did not manage to complete the questionnaires in a satisfying way on either Day 1 or Day 2. However, they were kindly asked to complete the questionnaire properly, particularly for the purpose of the study. The influential doctor not taking the questionnaires seriously is to be considered as one of the responsible factors for the poorly completed questionnaires.

Not even the fact that the task was made easier at Day 2 in terms of fewer group members to evaluate improved the results.

Figure 6 shows the average score of how the nurse group evaluated themselves after the meeting on Day 2. By comparing figure 5 and figure 6, figure 6 shows that the nurses
evaluated themselves as a more unified group, the distribution of roles being quite similar and located between the blue and green fields. Figure 5 on the other hand shows that the observer-reported data locates the group as being more in the blue field, except for one participant being in the green field. To be considered; the data from questionnaires enfold the group members’ experience ranging from a range of situations. The observer-reported data is however based only on the meetings observed.

However, the individual evaluations by the nurses differ from the average score, with some of the participants evaluating the group more like the observers’ evaluation (see appendix VI). But the overall tendency is that the participants tend to evaluate the group pattern as cluster-shaped, touching the green field, which does deviate from the observer-reported data.

*Doctors’ Meeting Day 2.* Eight doctors and the head of department attended the meeting, with the head of department in charge of the meeting as on Day 1.

As can be seen in figure 7, most of the group tends to be located in the blue field, from the overall impression of the meeting. And the overall impression from Day 2 is that the group tends to be more unified, with the whole group located in the blue field. However, as in the meeting on Day 1, one of the attending doctors joined the group halfway through the meeting. This was however not the same doctor who arrived late for the Day 1 meeting. The meetings were split into two to see whether the group dynamic was different before and after this attending doctor arrived (see figure 8 and figure 9).

As figure 8 shows, participant P6 is very engaged, illustrated by the circle size, and tends to be in opposition being close to the red field before the attending doctor joins the meeting. As in figure 9, participant P6 shows the tendency of moving away from the red field, and the circle size is also significantly smaller after the attending doctor joins the group. The group has a much clearer cluster pattern after the attending doctor joins the group, as in Table 14 the group members are located further apart from each other, while still being located in the blue field. None of the group members are located in the green nurture field. As the attending doctor joins the meeting, this doctor can be seen as G (=P12) in figure 9. The attending doctor also tends to be in opposition as the circle is located close to the red field.

By taking the frequency analysis into consideration, it is obvious that the attending doctor is addressing a significantly higher amount of transactions to participant P4, which indicates that P4 is the one discussing something particular with the attending doctor. P4 is also to be seen
to the right in the cluster, while P12 is located to the left in the cluster. These findings show that figure 9 is coherent with the frequency analysis.

P4 is addressing 45.5 percent (see table 4) of the transactions in the group, compared to 39.9 at the meeting on Day 1 (see table 2). Participant P10 decreases in the amount of transactions addressed.

P11, one of the residents, talked quite a lot during the meeting on Day 2, which supports the fact that participant P11 did not consider the doctor group to be characterized by a hierarchy pattern. This was revealed by P11 during the interviews. During this meeting, P11 is actually addressing 15.5 % of the total amount of transactions, a significantly higher percentage than several of the other doctors, including the attending doctors.

P12 was not present for more than 15 of the 60 minutes in total, which is why the numbers are so small compared to the other participants, although this person was illustrated with a big circle size compared to the others.

Participant P6 decreased in the percentage of transactions addressed. However, P6 is still one of the participants addressing a significant amount of transactions.

Participant P1 tended to be distinctly withdrawn during the meeting, as at the meeting on Day 1. P1 was one of the participants being interviewed and also the one saying that a distinct hierarchy among the doctors existed, resulting in some of the doctors withdrawing during some occasions, himself included.

**Operation Analysis**

*Nurses and doctors.* In general, the nurses were expected to be more caring (green) than the doctors.

Figure 10 to figure 15 show the percentage distribution of which of the functions Control, Dependency, Opposition, and Nurture are prevalent in the group defined on a scale from 1 to 10. The energy level is also taken into consideration, and is estimated by taking the synergy minus withdrawal (E = S – W)

As figure 14 and figure 15 reveal, on average the nurses did not act significantly more caring than the doctors during the meetings observed.

During the meeting on Day 1, the nurture tendency that came through was 1.00 (see figure 10), which is a significantly low number considering the maximum score of 10. However, the nurses did score 2.65 in Dependency. Dependency is to be seen as willingness to contribute,
and persons operating in this category are often understood as logical, objective, and analytical. The energy level is 1.73.

On Day 2 (see figure 11), the tendency of prevalent functions in the nurses group is the same as Day 1, however Nurture is tending to decrease, along with Dependency, while Control and Opposition are both increasing. At the meeting on Day 2, the tendency of Nurture during the meeting was reduced from 1.00 to 0.72, with an average score of 0.86 (see figure 14). These numbers are coherent with the SPGR room, which illustrates that the nurse group moved towards the red field and further away from the green field on Day 2 compared to Day 1. The energy level at the nurses meeting drops to 0.81 on Day 2.

The doctors’ tendency to Nurture during the meeting on Day 1 was 1.21, which was reduced to 0.42 at the meeting on Day 2 (see figure 12 and figure 13), resulting in an average score of 0.815, which is not significantly different from the nurses’ average score of 0.86 (see figure 15 and figure 14). However, the doctors have a low Dependency score compared to the nurses. The doctor group has an energy score of 1.50 on Day 1.

On Day 2, the tendency of prevalent functions in the doctors’ group is low scores in Dependency and Nurture, while the Control percentage has decreased slightly and the Opposition function has increased. The energy level at the doctors’ meeting has dropped to 0.65 on Day 2.

**Discussion**

The aim of this part is to discuss the main findings and to interpret them with the theoretical and methodological framework underlying the present investigation.

The overall purpose was to observe two groups over time, analyze their behaviour, to map the roles being present and the role distribution, give feedback and see whether any change occurred at an individual or group levels, or both.
**Implications**

Although this study is based on observations made at one hospital, another hospital was indirectly involved, as the two hospitals were considered as one department, but working at two locations as a split unit. However, the hospitals had the same head of department. The former leader/head of department of the two hospitals was seen to be working to keep open one of the hospitals, hospital 1, and was working on the other hospital, hospital 2, facing closure. As a consequence, the group working at hospital 2 was not very fond of the former leader. The former leader was replaced by the present leader. This new leader has been getting along better with the group working at hospital 2 than the group working at hospital 1. In addition, the group working at hospital 1 has been feeling threatened by this, in terms of being afraid that hospital 1 is now the one facing closure. The group working at hospital 1 has been claiming that the new leader is treating the two groups differently in terms of favouring one of the groups. There have been several attempts to depose the present leader. However, management at the hospitals has decided that the present head of department will continue operating as the current leader.

An important issue regarding this is that after the new leader started there has not been an issue of shutting down any of the hospitals, and there has been a decision made saying that both hospitals are safe in terms of being shut down. Still there have been rumours about this topic and therefore the present leader has met a lot of resistance from the group working at hospital 1. Employees at both hospitals are now being affected by this ongoing conflict, and there tends to be quite tense atmospheres at both hospitals.

At the day of the presentation meeting when the groups were assigned the head of department admitted the fact of consciously being allied with one of the influential doctors in the group to reach out to the group in a more easy way than by not being allied with this doctor. During the session it was obvious that the head of department wanted to do nothing than to please this particular doctor.

The implications mentioned will necessarily affect both groups being studied in terms of the meeting topics involving this conflict at all the meetings observed.

As the conflicts escalated during the study, the study was delayed by several weeks. Because of the time limit of this study there was not implemented a feedback session presenting the findings to the participants. However a presentation of the findings will take place a later stage.
In both groups the discussion was quite unstructured during all the meetings observed. However, the head of department was leading the meetings. All the meetings observed extended past the time agreed upon and the meetings had to be stopped. The head of department specifically asked the observers to stop the meeting at the scheduled time.

The interviews were very helpful and informative in terms of learning more about the group, and to confirm assumptions about the group in terms of the existing hierarchy in the doctor group, the nurses caring for each other, different roles and how they were typically distributed among the group members. The interviews also supported the findings from the observer-reported data from Day 1.

**Day 1**

On Day 1 the questionnaire consisted of one page where the participants were to value themselves and the other group members. However, the outcome was that a lot of the participants ended up scoring a lot of the group members the same, considering that all the group members were to be valued on the same page. In addition, there is some uncertainty about whether the participants filled in the questionnaire based on the actual meeting or in terms of what they thought of the other members on a general basis. Based on this, a decision was made not to use any of the questionnaires from Day 1. The overall tendency was that the doctors completed the questionnaires more poorly than the nurses.

**Nurses Day 1.** There is coherence between the SPGR room and the frequency analysis, considering the frequency of participant C being involved in a high percentage of the total amount of transaction being addressed. Both the SPGR room and the frequency analysis illustrate that C is significantly more involved than the other participants. As this particular participant is the head of department, it would also be expected that this participant would be more influential than the others. This idea supports the theory of status patterns often being hierarchically centralized.

**Frequency analysis, Nurses.** P3 makes a significantly higher amount of transactions compared to the other group members. However, the remaining transactions are quite evenly distributed among the other group members, varying from 17.3 to 24.0 percent.
Doctors Day 1. The group tends to have a unified cluster pattern. The attending doctor may be the reason for making the group appear unified, as this person was an influential person and the group did not tend to be that unified before this doctor joined the meeting. This would also support ideas saying that highly respected and influential persons often tend to keep the group together.

Interviews with the doctors support this, as the doctor group is characterized as a homogenous group. However, the interviews also reveal that a distinct hierarchy exists in the doctor group, and that some of the residents may be affected by this in terms of holding back their opinions to avoid discussions, despite wanting to show their respect to the doctors being higher than themselves in the hierarchy. These findings support the idea that status patterns are often hierarchically centralized and status relations are the stable distributions of authority or prestige in the group.

The tendency shows a cluster pattern located in the blue field. As expected, the doctors appear less in the green field compared to the nurses, which is supported by the findings. However, the doctors were also expected to be located more in the blue field, implying that the group is goal-oriented, with an attitude of ‘we know the best solutions’.

The distribution of roles in the group supports the idea of power holders often being at the top of the hierarchy. In the doctor group, the power holders were typically the attending doctors, two of which stood out. Below the top level, there is typically a member with less power than the leader, while having more power than the average members. The finding also supported this idea, in the doctor group this person being one of the residents.

The tendency in the doctor group was several withdrawn participants during the meeting, which also supports the idea of a hierarchy in the group. This was confirmed in one of the doctors’ interviews saying that some tended to keep a low profile during the meetings to show their respect to the attending doctors. The SPGR room shows this tendency in the doctor group. The frequency analysis is coherent with the other findings.

As different doctors attended the meetings on Day 1 and Day 2, it was possible to see whether the group dynamic changed as different participants attended. The meeting was also split into two to see whether the dynamic changed given one particular person being present or not.
Doctors’ meeting before the influential doctor joined the group. Participant E, a resident tend to be dominant along with participant F, head of department. However, E shows a tendency towards the red field while F is located in the blue field close to the green, which may be understood as this person trying to keep the group goal-oriented, discussing the issues in an objective way at the same time as the person tries to keep the group together. However, the group is not unified and somehow participant F does not manage to engage with all the persons in the group. The frequency analysis supports this idea, as transactions carried out by participant F are addressed to just a few of the other participants.

Doctors’ meeting after the influential doctor joined the group. The group appears to be located in a more distinct cluster pattern when the influential doctor joins the group, indicating that this doctor is influential in terms of the group following him. This idea was supported by the doctor interviews saying that there was a hierarchy among the doctors and that this particular doctor was highly respected among the other doctors, especially among the deputy doctors.

Participant F, a resident who was very engaged before the attending doctor joined the meeting, tended to be withdrawn after the attending doctor joined the group.

Findings from the doctors’ meeting on Day 1 support the idea of every group being unique. Different mixes of persons can be seen as different group dynamics coming to an expression, and one person can make a great difference in a group.

According to the frequency analysis, the head of department is the participant clearly addressing the most transactions in the group. However, the head of department does not address transactions to all the group members and most often to one person at the time. The head of department is addressing a significant amount of the transaction to four of the group member, which may explain why some of the participants are being captured as withdrawn. Some of the participants hardly address any transactions during the meeting.

Day 2
On Day 2, the questionnaire had one separate sheet for each of the group members to be valued. The purpose of doing it this way was to avoid too many similar scores on different group members, as in Day 1.
The nurses carried out the questionnaire, judging themselves and the five other members in the group, and the doctors completed the questionnaire judging themselves and 4 other group members to avoid the questionnaire taking too long. By doing it this way, each of the doctors did not score the whole group, but some of the other group members. However, this time the doctors’ questionnaires were so poorly completed that they were of no use. Overall the doctor made less an effort in completing the questionnaires than the nurses. And the influential doctor stepping forward indicating that the questionnaires were not important was affecting the other participants.

_Nurses’ Day 2._ The interviews with the nurses before the meeting predicted that P1 would show the tendency to move towards the red field at this meeting, which supports the fact that the nurses have been working together for several years and know each other well. From tending to be withdrawn at the first meeting, the nurse is more engaged during the meeting on Day 2, and the role the nurse plays out in the group tends to be different. This supports the idea that mature groups manage to differ in what role to occupy in the group depending on the topic of the meeting. The interviews also supported the idea of the nurse group being a mature group.

The group shows a tendency of moving away from the green field and towards the blue field during this meeting, which implies that the group dynamic differs from one meeting to another. However, there being two more participants present will also have to be taken into consideration.

The frequency analysis is coherent with the SPGR room in terms of the same person dominating as at the meeting on Day 1 also dominates on Day 2. But the other participants have changed in their role distribution. These findings imply that the nurse group is a mature group at some level in terms of managing to distribute the roles to adapt to different situations and meeting topics.

**Questionnaires**

The nurses evaluated themselves as a more unified group, the distribution of roles being quite similar and located between the blue and green fields. The evaluation by the observer locates the group as being more in the blue field, except for one participant being in the green field. In addition, there is a significant difference in the distribution of roles. Some are participating significantly more actively than others.
These findings imply that the group sees itself as more nurturing than the actual behaviour being expressed. By looking at the group’s evaluation it is not possible to see that one of the persons is addressing a lot more transactions than the other participants. Looking at the observers’ evaluation, one participant is significantly more active than the others, which is also supported by the frequency analysis.

These findings support the idea of people sometimes evaluating themselves inaccurately. But the data from questionnaires enfold the group members’ experience ranging from a range of situations. The observer-reported data is however based only on the meetings observed. This means that neither the nurses’ questionnaires nor the observer-reported data can be seen as wrong, but they do shed light upon different aspects of the groups.

However, performing such a task is an effective way of being more aware of oneself, other group members and the group as a unit.

The findings from the meeting on Day 2 imply that that the group dynamic is different on Day 2 compared to Day 1. These findings support the idea of the nurses being a mature group in terms of managing to change the role distribution at each meeting dependent on the topic of the meeting.

**Frequency analysis.**

Participant P1 goes from the lowest number of transactions to the second highest. The topic of the meeting must be taken into consideration, as the topic was of great importance for participant P1. This implies that the group dynamic differs from one meeting to another, with the participants taking on different roles in terms of what can be seen as the total percentage of transactions increasing and decreasing from one meeting to another.

Some other members increase the total amount of transactions being addressed, which also implies that the group dynamic differs from one meeting to another, with the participants taking on different roles.

**Doctors’ Day 2**

The group shows the tendency of being located on the blue field. The group also tends to be more unified compared to Day 1.

As none of the group members are located in the green field, this supports the idea of doctors not being typically expressing a caring behaviour when interacting. And the doctors’ interviews revealed that there are few occupations having a more distinct hierarchy than
doctors, which also implies that doctors are not particularly nurturing. The findings from the doctors’ meeting are consistent with what was revealed in the interviews. These findings are also supported by the idea that status patterns are often hierarchically centralized and status relations are the stable distributions of authority or prestige in the group.

In terms of role distribution, the tendency is not significantly different from Day 1. The same persons dominate the meeting, while the same persons who were withdrawn at the meeting on Day 1 also tend to show the same tendency during Day 2. This finding implies that the doctors tend to be operating at a lower level than the nurses in terms of maturity.

The group does not show a cluster pattern, and the influential attending doctor that joined the meeting midway on Day 1 is present during the whole meeting on the meeting Day 2, which implies that this doctor might not be the one keeping the group together as assumed after the meeting on Day 1, despite being influential. However, it is obvious during the meetings that the other participants do respect this doctor.

The group tends to have a more distinct cluster pattern when this particular doctor joins the meeting. The investigation does not pinpoint the reason for this, but it would be reasonable to assume that this attending doctor is high up in the hierarchy, and that other group members see this person as influential.

This particular attending doctor seems to be in opposition, being located close to the red field. It is, however, difficult to indicate which of the other participants the doctor is in opposition to, if any. But somehow this person disagrees, which is seen by the tendency of moving closer to the red field. The circle sizes do not change significantly after this doctor joins the meeting, but there is a tendency of the other group members to be slightly withdrawn after the doctor joins the group.

During the doctors’ interviews, P1 revealed that P1 had no intentions whatsoever in engaging in the conflict between the two hospitals. Being a resident, it was considered more important to focus on work duties and make good connections with the attending doctors. To defend the withdrawn behaviour of P1 or at least justify the behaviour in terms of seeing it from the perspective of what was said during the interview, the topic of both meetings involved the conflict between the two hospitals. Considering the topic, it would be expected that participant P1 would not engage in the meetings, which could explain the behaviour that could be interpreted as passive or withdrawn.
Participant P6 was overall more engaged than most of the other participants at both meetings. However, P6 was also the resident’s spokesperson, presenting the residents as a group, which clearly made P6 a more influential person than the other residents. At one of the doctors’ interviews, it was said that Participant P6 was seen to be high up in the hierarchy, despite not being an attending doctor. The findings in this study support that statement from the interview. The head of department often referred to P6 during the meetings, which supports what was revealed in the interview.

Among the doctors, the distribution of transactions showed pretty much the same tendency on both days, with some of the participants being much more active than others. The frequency analysis also revealed that some of the participants did not communicate at all during the meeting. The same tendency was present at the meeting on Day 1. However, that would not indicate anything particular considering the size of the group. Considering a group of 9-11 persons there is no room for everybody talking to each other during a time limited meeting.

**Operation analysis – Prevailing functions in the groups**

*Nurses.* There was a possibility that the nurses would express a high level of Nurture in the group, as they had been working together for several years and knew each other very well. However, considering the diagram showing the distribution of which prevailing functions that appeared during the meeting, this was not the case, as the nurses did not score significantly high in Nurture.

However, at the meeting on Day 1, all the participants touch the green field, except one participant who is in the blue field, but still close to the green field. Considering these findings, the ideas of the nurses being nurturing cannot be falsified based on this study. The nurses did however score higher in Dependency, which can be seen as the nurses being dependent on one another, saying something about the willingness to contribute and support each other to obtain specific goals.

However, in addition to the nurse group mainly touching the green field on Day 1, the Dependency score being significantly higher than the nurture score, which was expected to be high in the nurse group, may make up for the lower nurture score.

In terms of the nurses not scoring as high as expected in nurture, the observation during the meetings showed that they did express some nurturing non-verbal behaviour in terms of touching each other in a caring way during the meeting. In addition, the interview revealed
that one of the nurses had been given another flowers, as the other nurse was going through a hard time, which was work-related. No such incidents were expressed at the doctors’ meetings, nor at the doctors’ interviews. These findings imply that despite the nurses scoring lower in nurture than the doctors on Day 1, they still treat each other in a more caring way than do doctors. In addition, the nurses’ average nurture score was higher than the doctors’ average nurture score, albeit not significantly.

**Doctors.** The doctors were expected to score significantly higher in Control than Nurture and Dependency, which is also what the findings reveal. The doctors score significantly higher in Control than in Nurture and Dependency. These findings support the findings in the SPGR room, which locates the group mainly in the blue Control field and not in the green Nurture field.

Both the nurses and the doctors show the same tendency through a decrease in Dependency and Nurture from Day 1 to Day 2, and at the same time both increase in Opposition. The energy level drops in both groups. Both the doctors and nurses score low in Nurture, however the score differs significantly in Dependency. Overall, the doctors tend to score higher in Control than do the nurses. However, the nurses still have quite a high score in Control. The tendency of both groups was that they moved in the direction of the red Opposition field from Day 1 to Day 2. These findings are supported by the operation analysis in terms of both groups’ increase in the Opposition score.

With the doctors’ group having an existing hierarchy pattern present in the group and the expectancy of being goal-oriented with a low willingness to change existing norms, they would be expected to have a different distribution of prevailing functions than the nurses. However, the numbers are not very different: both the findings tend to support the expectancies of both groups in terms of the nurses being more caring and willing to cooperate, and the doctors in terms of being more goal-oriented and more frequently in opposition.

The nurses have a more even distribution of the prevailing functions in the group than do the doctors, however not evenly distributed. But these findings imply that the nurses are a more
mature group than the doctors in terms of managing to distribute the different qualities and skills in the group.

**Conclusion**

There proved to be two quite different groups in terms of occupation, hierarchy within the group and degree of maturity. The nurses tended to be more caring than the doctors. However, the nurse group consisted of females only, while the doctor group consisted mainly of men, and this investigation has not taken sex issues into consideration, which would be for another study to investigate. The SPGR method proved to be a good tool for mapping different roles within a group in addition of getting a systematized impression of the group structure.

In a mature group, members tend to take on different roles depending on the particular topics of the meeting. Considering the findings in this study, it would be fair to say that the nurse group was more mature than the doctor group, as the nurses varied in their participation and distribution of roles during the meetings. It is, however, not possible to say at what level of maturity the groups were operating at based on this particular study.

By investigating groups that both have a history and a future together, the chances of obtaining a better understanding of the processes going on in a group are improved, and it is more likely that the findings can be generalized to other groups, or be checked by other methods. However, the participants were overall well-educated, and can be assumed to be more psychologically minded than another sample of groups would be. The data on group process were assessed mainly from the observers’ perspective, but also from the participants’ perspective, considering the nurses’ questionnaires.

Overall, the findings in this study tend to be coherent. Furthermore, the findings of the investigation of this study support existing theories.

In hospital settings, doctors are far more influential than nurses, in addition to being considered far more difficult to replace if they leave.
There are not many occupations that have the same hierarchy as doctors. At a hospital with doctors on top of the hierarchy, the findings in this study imply that changes in hospitals do not come easily, as doctors tend to be a group that shows more resistance to change than other groups like nurses, which is also supported by their high score in control compared to dependency and nurture.
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FIGURES AND TABLES

Figures

Figure 1
SPGR Room Nurses Day 1
Note. 3 out of 5 nurses attended the meeting Day 1. The fourth person attending is the head of department.

Figure 2
Doctors’ Meeting Day 1
Note. 9 out of 11 doctors attended the meeting. In addition, the head of department and one nurse was present at the meeting. Some of the doctors arrived late and some left the room and came back several times. This table shows the overall impression of the meeting.
Figure 3
Doctors’ Meeting Day 1
*Note.* SPGR-room showing the group *before* the influential doctor joins the meeting.

Figure 4
Doctors’ Meeting Day 1
*Note.* SPGR-room showing the group *after* the influential doctor joins the meeting.
Figure 5
Nurses Meeting Day 2
The nurses that attended the meeting on Day 1, and the head of department also attended the meeting Day 2. In addition two other nurses attended the meeting, one of these being the nurse that attended the doctors’ meeting on Day 1.

Figure 6
SPGR-room Nurses Day 2.
Nurses average score by self evaluation.
8 out of 11 doctors attended the meeting. In addition, head of department was present at the meeting. Some of the doctors arrived late. This table shows the overall impression of the meeting.

Figure 7
Doctors' Meeting Day 2
*Note.* 8 out of 11 doctors attended the meeting. In addition, head of department was present at the meeting. Some of the doctors arrived late. This table shows the overall impression of the meeting.

Figure 8
Doctors’ Meeting Day 2 – First half of the meeting
*Note.* SPGR-room showing the group *before* the influential doctor joins the meeting, however, this is not the same doctor as arrived late at the meeting on Day 1
Figure 9
Doctors’ Meeting Day 2 – Second half of the meeting
Note. SPGR-room showing the group after the influential doctor joins the meeting, however, this is not the same doctor as arrived late at the meeting Day 1

Figure 10
Distribution of prevailing functions and level of energy the group operates at on a scale 1-10. Nurses, Day 1
NURSES’ MEETING DAY 2

Figure 11
Distribution of prevailing functions and level of energy the group operates at on a scale 1-10. Nurses, Day 1

DOCTORS’ MEETING DAY 1

Figure 12
Distribution of prevailing functions and level of energy the group operates at on a scale 1-10. Doctors, Day 1
DOCTORS' MEETING DAY 2

Figure 13
Distribution of prevailing functions and level of energy the group operates at on a scale 1-10. Doctors, Day 2

NURSES' AVERAGE MEETING SCORE

Figure 14
Average distribution of prevailing functions and level of energy the group operates at on a scale 1-10. Nurses.
Figure 15
Average distribution of prevailing functions and level of energy the group operates at on a scale 1-10. Doctors

Tables

Table 1
Frequency analysis percent. Nurses Meeting Day 1.

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Percentage amount of transactions between the participants and in total.

Note. Participants P5 and P6 were not present at the meeting and there will be no scores for these persons.
Table 2
Frequency analysis percent. Doctors Day 1

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Percentage amount of transactions between the participants and in total. Nurses Day 2

Table 3
Frequency analysis percent. Nurses’ Meeting Day 2

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Percentage amount of transactions between the participants and in total. Nurses Day 2

Table 17/4
### Frequency analysis percent. Doctors’ Meeting Day 2

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**Note.** P2, P5, P8, and P9 who attended Meeting Day 1 was not present at the meeting Day 2 and there will be no scores for these persons. Two other doctors attended the meeting Day two, and these doctors will be scored as P13 and P14.
**INSTRUKSJON for utfylling**

Nedenfor finner du 24 påstander som beskriver ulike sett av verdier som kan komme til uttrykk i samarbeidssituasjoner. For hver av disse påstander skal du ta stilling til om verdissetet uttrykkes i den kolonnen du beskriver.

Hvis svaret er SJELDEN, merk med 0; NOEN GANGER, merk med 1; OFTE, merk med 2.

Du skal fylle ut kolonnene for hver person i gruppen, **inkludert deg selv**.

Hver kolonne angir en person. Beskriv en person av gangen og ta stilling til alle 24 påstandene for denne personen før du går over til neste person (kolonne).


(Husk: fyll ut **alle 24 påstandene for alle kolonnene**)

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<th>SJELDEN = 0, NOEN GANGER = 1, OFTE = 2</th>
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<td>1. Utadvent, Åpen, Selskapelig</td>
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<td>2. Engasjert, Måltrett, Konstruktiv i samarbeid</td>
</tr>
<tr>
<td>3. Upersonlig, Effektiv, Styrende</td>
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<td>4. Autoritær, Kontrollerende, Kritisk</td>
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<td>5. Påtrengende, Tøff, Konkurranseinnstilt</td>
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<td>6. Selvsentrert, Provoserende, Umedgjørlig</td>
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<td>7. Dramatisk, Innfallsrik, Underholdende</td>
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<td>8. Beskyttende, Omsorgsfull, Varm</td>
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<td>9. Vennlig, Uformell, Ser alle som likeverdige</td>
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<td>10. Samarbeidsvillig, Støttende, Oppmuntrende</td>
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<td>11. Analytisk, Saklig, Rasjonell</td>
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<td>12. Påståelig, Pedantisk, Ubøyelig</td>
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<td>21. Innesluttet, Avvisende, Tilbakeholden</td>
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<td>22. Motløs, Oppgitt, Giddesløs</td>
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**Demografiske data**

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Appendix II

Intervjuguide - Sjukepleier

Grunnen til at vi intervjuer deg er til bruk i våre masteroppgaver i psykologi ved Universitetet i Oslo. Vi har i tillegg filmet møter og samlet inn informasjon ved bruk av sjølrapporteringsskjemaer. For å få se på temaet ”gruppedynamikk” fra et annet ståsted gjennomfører vi i dag en del intervjuer. Blant annet med deg. Vi tar opp intervjueene på bånd, så vi er sikre på at vi får med oss alt som blir sagt. Opptakene blir slettet etter at vi er ferdig med å bruke dem. Informasjonen du kommer med blir anonymisert i oppgaven.

Har du noen spørsmål?

Da setter vi i gang.

1. Formaliteter
- Stilling
- Alder
- Kjønn
- Fartstid i jobben
- Fartstid på sjukehuset

2. Om sjukepleiergruppa
- Hva syns du om å delta på møter i den gruppa?
- Hvor godt kjenner dere hverandre?
- Hvordan syns du dere jobber sammen?
- Hva syns du om sammensetningen av gruppa?
- Er det stort sett de samme som er med hver gang?
- Hvor ofte møtes dere til slike møter?

3. Gruppedynamikk
- Er det noen som snakker mer enn andre når dere har møter?
- I så fall, hvem?
- Hva syns du om det?
- Føler du at du kommer til orde nok i gruppa?
- Tror du det gjelder for alle i gruppa?
- Får du sagt det du vil?
- Hvor åpen og ærlig kan du være i gruppa?
- Bidrar alle nok?

4. Roller og ledelse
- Er det en tydelig leder av gruppemøtene?
- I så fall, hvem?
- Hvordan fungerer det?
- Hva fører det til?
- Sørger lederen for at alle kommer til orde?
- Hva liker du best; fri flyt eller klar styring av møter?
- Hvordan fungerer det i deres gruppe?
- Kunne noe blitt gjort annereledes?

5. SPGR-rommet
Du kjenner til SPGR-rommet ikke sant? Blått er kontroll, grønt er omsorg og rødt er opposisjon. Vi skal nå plassere gruppa og individene i deres gruppe i SPGR-rommet.
- Hvor vil du plassere gruppa?
- Hvor tror du mesteparten av medlemmene hører hjemme?
- Hvor er du?
- Hvor vil du helst ha vært?
- Hvor tror du hver enkelt medlem hører til?
- Hvor tror du den ideelle gruppe hører hjemme?
Appendix III

Intervjuguide – Sjukepleier/lege

Grunnen til at vi intervjuer deg er til bruk i våre masteroppgaver i psykologi ved Universitetet i Oslo. Vi har i tillegg filmet møter og samlet inn informasjon ved bruk av sjølrapporteringsskjemaer. For å få se på temaet ”gruppedynamikk” fra et annet ståsted gjennomfører vi i dag en del intervjuer. Blant annet med deg. Vi tar opp intervjuene på bånd, så vi er sikre på at vi får med oss alt som blir sagt. Opptakene blir slettet etter at vi er ferdig med å bruke dem. Informasjonen du kommer med blir anonymisert i oppgaven.

Har du noen spørsmål?

Da setter vi i gang.

1. Formaliteter
   - Stilling
   - Alder
   - Kjønn
   - Fartstid i jobben
   - Fartstid på sjukehuset

2. Om sjukepleiergruppa
   - Hva syns du om å delta på møter i den gruppa?
   - Hvor godt kjenner dere hverandre?
   - Hvordan syns du dere jobber sammen?
   - Hva syns du om sammensetningen av gruppa?

3. Legegruppa
   - Hva syns du om å delta på møter i den gruppa?
   - Hvor godt kjenner dere hverandre?
   - Hvordan syns du dere jobber sammen?
   - Hva syns du om sammensetningen av gruppa?
4. Gruppedynamikk
Vi skal nå sammenligne legegruppa og sjukepleiergruppa litt. Se på likheter og ulikheter.
- Hvilke likheter ser du mellom de to gruppene?
- Hvilke forskjeller fins?
- Hvordan påvirker evt. forskjeller de to gruppene?
- Hvordan vil du sammenligne de to gruppene med tanke på deltagelse?
- Deltar flere i den ene gruppa?
- Kommer alle til orde?
- Er det noen som tar stor plass?
- Hvem?
- Hvordan?
- Hvordan skiller gruppene seg fra hverandre på disse punktene?

5. Roller og ledelse
Mer forskjeller og likheter.
- Hvordan ledes møtene i de to gruppene?
- I hvilken gruppe er lederen tydeligst?
- Trenger den ene gruppa mer ledelse enn den andre?
- Hvordan?

6. SPGR-rommet
Du kjenner til SPGR-rommet ikke sant? Blått er kontroll, grønt er omsorg og rødt er opposisjon. Vi skal nå plassere gruppene og individentene i deres gruppe i SPGR-rommet.
- Hvor vil du plassere gruppene?
- Hvor er legene plassert?
- Hvor er sjukepleierne plassert?
- Hvor er AC i legegruppa? Kontra sjukepleiergruppa?
- Hva med deg sjøl? Har du forskjellig rolle i de to gruppene?
- Hva slags gruppekultur har de forskj gruppene?
Appendix IV

Intervjuguide - Lege

Grunnen til at vi intervjuer deg er til bruk i våre masteroppgaver i psykologi ved Universitetet i Oslo. Vi har i tillegg filmet møter og samlet inn informasjon ved bruk av sjølrapporteringskjemaer. For å få se på temaet "gruppedynamikk" fra et annet ståsted gjennomfører vi i dag en del intervjuer. Blant annet med deg. Vi tar opp intervjuene på bånd, så vi er sikre på at vi får med oss alt som blir sagt. Opptakene blir slettet etter at vi er ferdig med å bruke dem. Informasjonen du kommer med blir anonymisert i oppgaven.

Har du noen spørsmål?

Da setter vi i gang.

1. Formaliteter
   - Stilling
   - Alder
   - Kjønn
   - Fartstid i jobben
   - Fartstid på sjukehuset
   - Overlege/ass. Lege?

2. Om legegruppa
   - Hva syns du om å delta på møter i den gruppa?
   - Hvor godt kjenner dere hverandre?
   - Hvordan syns du dere jobber sammen?
   - Hva syns du om sammensetningen av gruppa?
   - Er det stort sett de samme som er med hver gang?
   - Hvor ofte møtes dere til slike møter?

3. Gruppedynamikk
   - Er det noen som snakker mer enn andre når dere har møter?
   - I så fall, hvem?
- Hva syns du om det?
- Føler du at du kommer til orde nok i gruppa?
- Tror du det gjelder for alle i gruppa?
- Får du sagt det du vil?
- Hvor åpen og ærlig kan du være i gruppa?
- Bidrar alle nok?
- Er det noen som har mer innflytelse enn andre?

4. Roller og ledelse
- Er det en tydelig leder av gruppermøtene?
- I så fall, hvem?
- Hvordan fungerer det?
- Hva fører det til?
- Sørger lederen for at alle kommer til orde?
- Er det noen som har mer uformelle lederroller?
- Hva liker du best; fri flyt eller klar styring av møter?
- Hvordan fungerer det i deres gruppe?
- Kunne noe blitt gjort annerledes?
Appendix V

SPGObserver
Appendix VI

P1s' evaluation of the group

\[(X;Y;Z)\]
- P1 = A (0.8; 4)
- P2 = B (10.6; 0)
- P3 = E (0.8; 5)
- P4 = C (8.7; 0)
- P5 = D (6.10; 3)
- P6 = F (11.4; -4)

P2s' evaluation of the group

\[(X;Y;Z)\]
- P1 = A (7.3; 5)
- P2 = B (8.2; 3)
- P3 = E (1.9; 7)
- P4 = C (5.2; -1)
- P5 = D (7.4; -1)
- P6 = F (5.0; 3)
P3's evaluation of the group

(X, Y, Z)
P1 = A = (11, 0, 12)
P2 = B = (13, 0, 8)
P3 = E = (5, 0, 5)
P4 = C = (15, 0, 1)
P5 = D = (9, 5, 3)
P6 = F = (15, 1, -1)

P4's evaluation of the group

(X, Y, Z)
P1 = A = (10, 4, 4)
P2 = B = (11, 1, 6)
P3 = E = (5, 8, 8)
P4 = C = (15, 2, 0)
P5 = D = (6, 9, 5)
P6 = F = (10, 4, 1)