ABSTRACT
              Although research on the role of social support in
psychological well-being has increased, little attention has been
given to behavioral methods for measuring these supportive
mechanisms. To study the support exchanged in marital dyads, a
behavioral observation system was designed and used to detect changes
in the marital relationship of one white, middle class family
participating in an Early Intervention parent training program. The
behavioral observation system recorded supportive functions
(cognitive guidance, social reinforcement, tangible assistance,
socializing, and emotional support) at 30 second intervals as well as
the directionality of the support. Observations were recorded during
evening, home-based family interactions every 2 weeks for 5 months.
Concurrent with the observed interaction periods, the parents
proceeded through the parent training program from baseline to
Intervention Level 3. An analysis of the results showed that it was
possible both to monitor supportive behaviors reliably in a home
setting, and to document changes in these behaviors. Changes in
inter-parent support were found concurrent with involvement in the
parent training program. Individual modification of dimensions of
emotional support were also increased through the use of feedback and
goal setting, as monitored by the observational system. (BL)

A Behavioral Approach for Measuring

Social Support

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Running head: Measuring Social Support

Abstract

The present study describes the construction of an observation system to measure social support behaviors. The supportive behavioral categories of cognitive guidance, tangible assistance, social reinforcement, emotional support, socializing, and the directionality of support may be measured using this system. Once developed, the observational system was employed in documenting changes in supportive behaviors between two parents who were involved in a parent training program. Findings from this study indicated that it is possible to both reliably monitor supportive behaviors in a home setting, and document changes in these behaviors. Implications for using an observational system to study social support are discussed.

A Behavioral Approach for Measuring Social Support

In recent years, the area of social support has received considerable attention. Originally, social support was thought to be a buffer against stress, and it was felt that those with high social support were less likely to evidence stress related symtomology (Caplan, 1974). More recent studies have undertaken an examination of the relationship between social networks and various psychological states (Wellman, 1981; Hirsch, 1981; Heller & Swindle, 1983). For example, Hirsch (1980) found that women coping with major life changes had significantly higher self-esteem if they had multi-dimensional relationships, but women having denser networks experienced less satisfaction. As these findings and others have emerged, many mental health professionals have become interested in the area of social support.

At least part of the upsurge in interest in social support has derived from the findings that people are more likely to turn to friends and family for advice, reassurance and other kinds of support than to professional service organizations (Gourash, 1978). Yet, relatively little is known about the nature of these naturally occurring social ties. To deal with this gap in our knowledge base, social scientists have devoted attention to better conceptualizing and articulating the concept of social support. For example, investigators have developed instruments to measure subjective appraisals of support (Heller & Swindle, 1983) and the types of activities engaged in during supportive interactions (Barrera, 1981). There is a need to be even more specific by defining exactly what behaviors are supportive and how they are manifested in interpersonal relationships.

Gottlieb (1981) has proposed a "micro level of analysis" to study social support. He proposed this approach to identify the resources available in, and

benefits derived from, close and confiding social ties. In taking this

approach, investigators need to specify what specific behaviors, in the

context of particular interactions, are supportive. Gottlieb examined a

variety of supportive interactions and derived a classification of 26 helping

behaviors, which could be sorted into three categories: emotionally sustaining

behaviors, problem solving behaviors, and indirect personal influence

behaviors (Gottlieb, 1978). Unfortunately, these behaviors have not been

formally observed using rigorous behavioral categories.

Operationalization of supportive functions into observable and quantifiable

behaviors could contribute to our understanding of the nature of supportive

ties. The development of an observation system to measure social support

could facilitate our understanding of social support in several ways. Such a

system could aid in the examination of the temporal aspects of support, such

as how supportive behaviors develop and change overtime in particular

relationships and circumstances, such as life transitions. Several authors

have noted the need for research on the temporal aspects of social support

(Hirsch, 1981; Eckenrode & Gore, 1981; Wilcox, 1981; Heller & Swindle, 1983).

In addition, specifying the behavioral counterparts of structural variables

such as strength and reciprocity would do much to elucidate the nature of

support in dyadic relationships. Finally, more precise behavioral observation

systems could be utilized to document changes in support due to specific

interventions which attempt to increase supportive behaviors.

The present study describes the development of a behavioral observational

system designed to observe support exchanged in marital dyads. The behavioral

observation system was used to detect change, in a marital relationship

concurrent with involvement in a parent training program. In addition,

an attempt was made to increase emotionally supportive behaviors occurring

between parents. Feedback and goal-setting were used to modify these

supportive behaviors.

Method

Social Support Observation System

A coding system was developed to record supportive interactional behaviors

between parents in the home setting. The system was developed using the

categories of supportive functions postulated by Hirsch (1980). These

are cognitive guidance, social reinforcement, tangible assistance, emotional

support, and socializing. Specific behaviors consistent with these categories

were defined so they could be reliably observed and recorded. The

specification of these behaviors drew heavily from Gottlieb's categorization

of helping behaviors (Gottlieb, 1978). Definitions of the behavioral

categories are below:

Cognitive guidance:	-provides information, advice, explanations, suggestions, or problem clarifications; focused talking about problem details.
Social reinforcement:	-praising actions, expressing appreciation for actions performed.
Targible assistance:	-intervening to assist in a task already begun by the other person; offering assistance after a request for assistance has been made.
Socializing:	-talk about non-problem oriented topics.
Emotional Support:	-provides reassurance or encouragement; expresses understanding, respect, concern, trust or intimacy.

These categories of behavior are recorded as either occurring or not occurring at 30 second intervals. Also the direction of support given is recorded (i.e., mother to father, father to mother, or reciprocal) for each 30 second interval.

The interactional behaviors are expressed as frequencies per observation period. An overall indication of support is derived by the number of intervals where any supportive behavior occurred divided by the total number of intervals. The ratio of mother to father, father to mother, and reciprocal support are also derived (e.g., the number of intervals where reciprocal support occurred divided by the total number of intervals where supportive behaviors occurred).

Four hours of training was required to train observers (reliability will be reported in the results section). Observers were equipped with a cassette tape recorder with a tape with tones designating the recording intervals, an earphone, and coding sheets.

Participants

One family referred to the Early Intervention Program (EIP), a parent training program at Children's Memorial Hospital, Chicago, Illinois, served as participants in the study. The family satisfied the following criteria: 1) both the mother and father resided in the home, 2) one child under the age of six had been identified as exhibiting noncompliant behaviors in the household, and 3) the child had no history of psychiatric or psychological treatment.

The family was caucasion and middle class, with the father's profession being teaching and the mother being a home-maker. There were three male children in the family, one, three, and five years of age. The five year

old, pre-school youth, was the child targeted as exhibiting noncompliance.

Setting

Both parents and the treated child were at each home observation. The

family remained in two adjoining rooms, and avoided watching telivision or

making phone calls. With the exception of commercial board games, toys

were permitted in the observation area. At times other family members were

present in the observation area, but their behaviors were not recorded.

Procedure

Evening observations were done approximately once every two weeks for

the duration of the study (five months). Each home observation consisted of

a 40 minute observation period. The family proceeded through baseline,

intervention I, intervention II, and intervention III. The intervention

phases are described below.

Baseline. Baseline data were collected for one month (three data points)

prior to the family's beginning the EIP in-clinic parent training program.

Intervention I. During this phase, which lasted one month (three data

points), the mother began involvement in the EIP child management program

(Reisinger & Lavigne, 1980). In the program, the mother learned contingent

attention skills by working with a trainer in clinic structured play sessions

twice per week. The mother also learned social learning parenting techniques

and participated in a parent problem solving group with other EIP mothers.

Intervention II. This intervention, which lasted one month (two data

points), consisted of: 1) instructing the father in basic social learning

principles, and 2) enumerating the importance of father involvement in child-

rearing. The experimenter went over this material with the father and mother,

in the home, emphasizing important points and clarifying aspects the father

had questions about. The intent of this intervention was to provide the father with parenting skills the mother had been acquiring in the EIP program. The mother continued involvement in EIP during this phase.

Intervention III. This intervention, which lasted two months (six data points), consisted of giving the parents feedback on the frequencies of each of the five categories of support as they occurred during baseline through intervention II, and setting goals for increasing supportive behaviors. Both parents selected emotional support as a dimension which they would be interested in changing. They discussed with the first author possible ways in which emotional support could be increased. They decided to attempt to increase their expressions of caring and intimacy toward one another, which both agreed needed to be increased. The father, in particular, desired to increase his emotionally supportive behaviors.

By way of clarification, the study reported here is one component of a project which also evaluated the generalization of EIP parenting skills, learned by the mother, to the home setting (i.e., intervention I), and the effectiveness of an intervention to increase the father's use of behavioral parenting skills (i.e., intervention II). Observers, trained in the Forehand (1977) system, coded parent-child interactional behavioral sequences, concurrent with the observation of inter-parent supportive behaviors. Behaviors recorded included parental commands, child compliance or noncompliance to commands, and contingent attention (i.e., rewarding of compliant behavior). An increase in the parents use of contingent attention and a decrease in the targeted child's noncompliance were expected.

Results

Social support can be reliably observed with the present system.

Reliability was taken during one observation period. Interrater

reliability was assessed using the formula [agreement/(agreement + disagreement)].

Reliabilities ranged from .89 to 1.00 for different categories of supportive

behaviors. Reliabilities for the different categories follow: cognitive

guidance, .89; socializing, .95; tangible assistance, .99; emotional

support, .99; and social reinforcement, 1.00.

Changes in support over baseline and the first two intervention phases

were found. Reciprocity was defined as the per cent of intervals, where

support was provided, in which provision of support was bidirectional

between parents. Reciprocity of support decreased during the first inter-

vention and returned to baseline levels during the second intervention

phase. The mean percentages were as follows: baseline, 68%; intervention I,

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Insert Figure 1 about here

36%; and the mean for the next two intervention phases, 64%. The decrease

during the first intervention was due primarily to the father being less

supportive. Figure 2 shows the mean percentages of intervals in which the

father and mother provided support out of the total intervals where support

occurred.

Insert Figure 2 about here

During the last intervention, the parents were provided with feedback

and set goals for increasing emotional support. This was successful in

increasing the frequency of emotionally supportive behaviors. The mean

frequency across baseline and the first two intervention phases of

emotionally supportive behaviors was .62 per observation period. During

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Insert Figure 3 about here

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the last intervention, the frequency increased to a mean of 4.5 per

observation period. This intervention also had the effect of increasing

cognitive guidance, socializing, and social reinforcement.

As an overview of the results of the other aspects of the study,

the mother's and father's use of contingent attention to child compliance

increased. The mean percentages of contingent attention to child compliance

by the father were as follows: baseline, 3%; intervention I, 16%; and the

mean for the next two intervention phases, 36%. The corresponding percent-

ages for the mother were, 1%, 14%, and 40%, respectively. The targeted

child's noncompliance also decreased. The mean percentages of noncompliance

to total commands were as follows: baseline, 10%; intervention I, 9%; and the

mean for the next two intervention phases, 2% (Liotta, Note 1).

Discussion

The present investigation demonstrated that social support can be

reliably operationalized into specific supportive behaviors. This observational

system illustrates a different approach for studying social support, one

which might increase our understanding of the nature of supportive ties,

and provide a way to examine changes in support over time.

The data from the behavioral observations provided an excellent example

of how behavioral training might damage social support. Parent training of the

mother negatively affected the reciprocity of support exchanged in the marital

relationship, primarily by reducing the support offe_ed by the father.
When the father was taught the parenting skills which had previously been
shown to the mother, the negative effects were ameliorated. The father
felt the decrease in reciprocity during intervention I was due to his
"uncomfortableness" with the new parenting techniques the mother was
beginning to use. He mentioned that he did not really understand the
techniques and felt they were of questionable utility. When he was actually
taught the techniques, he became more comfortable with this approach to child
management. Apparently, the father's "uncomfortableness" was reflected in
supportive interactional behaviors.

Further, it appears that changing one aspect of family functioning
will have second-order effects on supportive interactions. These findings
are important for they indicate that behavioral investigators need to
adopt a more ecological or system-level approach when implementing behavior
change programs.

Another interesting finding was that individuals can modify dimensions
of emotional support. The couple was able to increase emotional suppo.
and increases were also noted in cognitive guidance, socializing, and social
reinforcement. Both parents reported that the feedback about their supportive
behaviors was worthwhile. They were surprised by the low frequency of many
of the behaviors during baseline and the next two interven'ion phases. The
father felt his goal of attempting to increase support wa: .elpful to him.

Consistent with these attitudes, changes in support were due
primarily to increases in the father's elicitation of supportive behaviors.
Thus, it does seem possible to make self-initiated changes in social support

when goal-setting and feedback are employed. More than likely, individuals

have the potential to create more supportive relationships. Still, these

findings need to be interpreted cautiously until they can be replicated

with larger samples.

The findings of the present study indicate that social support can be

reliably operationalized into specific supportive behaviors. Changes in

inter-parent support were found concurrent with involvement in a parent

training program. Also, emotionally supportive behaviors were increased

through the use of feedback and goal-setting. The observation system developed

for this investigation facilitated documentation of changes in supportive

interactions in a marital couple over time. There is a need for further

research examining how supportive behaviors develop and change over time

in particular relationships, settings, and circumstances. In addition,

examining methods of increasing supportive behaviors is an area worthy of

further research. Observational systems, such as the one employed in present

study, have the potential of providing the operational specificity needed

to examine "micro level" aspects of social support (such as those noted above),

which are not easily investigated by other methodological approaches.

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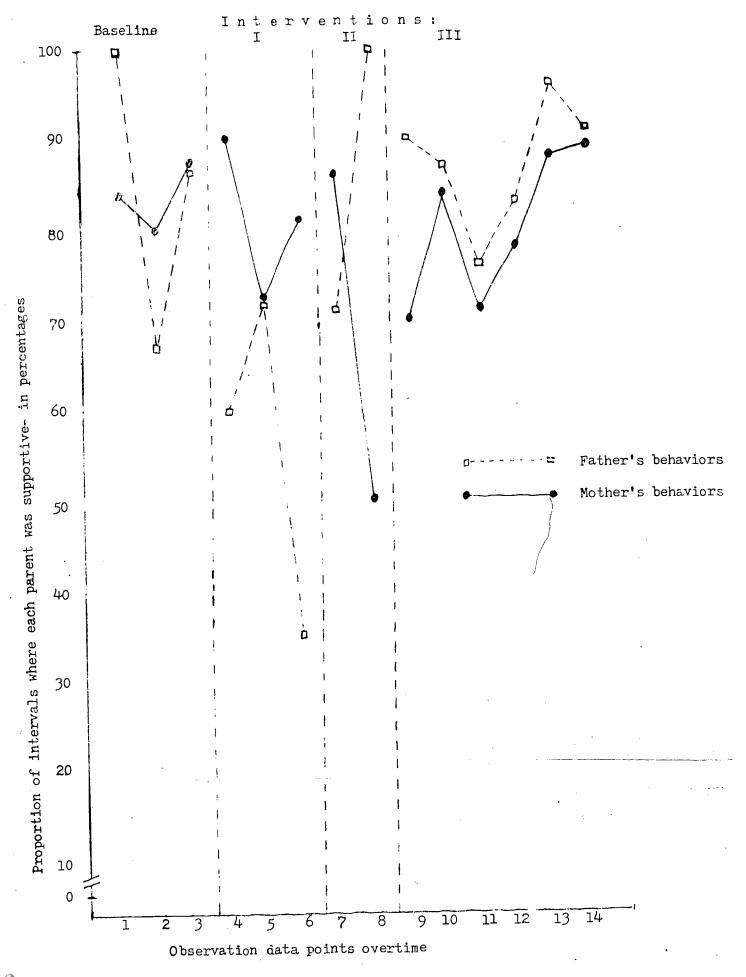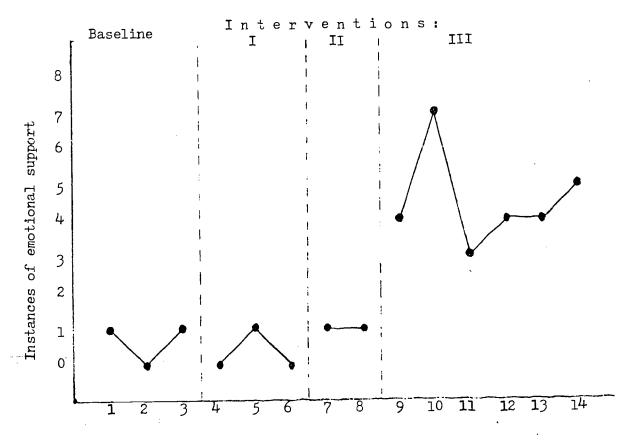Author Notes

Figure Captions

Figure 1. Proportion of reciprocal intervals of total supportive intervals

Figure 2. Proportion of intervals each parent was supportive of total supportive

intervals

Figure 3. Frequency of emotional support

Interventions:

Baseline   I   II   III

Proportion of reciprocal interval:- in percentages

Observation data points overtime

Interventions:

Baseline   I   II   III

Proportion of intervals where each parent was supportive in percentages

□ - - - - - - □   Father's behaviors
●————————●   Mother's behaviors

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Observation data points overtime

20

Instances of emotional support

Baseline   I n t e r v e n t i o n s :
                 I | II | III

Observation data points overtime

21