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TIME PERSPECTIVES IN NURSING PRACTICE

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for the degree of Master of Arts
in Nursing Studies at Massey
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ABSTRACT

This study examines the relationship between the concepts of time and nursing practice. This study was designed to:

- ascertain which of the two time perspectives best represented the view of time held by a selected group of nurses
- generate data which would give an indication of the way in which these nurses view time in its totality
- examine the relationship between cyclic and linear time and six selected job components common to all nursing practice

Data was obtained from 346 nurses employed in two hospitals and a maternity annex using a self report questionnaire. The items in the questionnaire were developed to examine nurses' perception of time in a free choice situation, their perception of cyclic and linear time in a forced choice situation and their perception of time as it related to six components of their work.

The results indicate that:

nurses in this study did not view the concepts of cyclic and linear time as mutually exclusive entities. At the time of this study approximately two thirds of subjects viewed time as predominantly linear and the remaining third viewed time as predominantly cyclic.

Nurses in the more senior employment categories are more likely to have a linear view of time than those in the more junior employment categories. This is supported by the result indicating that a greater percentage of nurses within senior employment categories selected the diagram representing the concept of linear time, than those in the more junior categories. It is also supported by results indicating that while nurses in all employment categories perceived their work as involving some routine duties and that established procedures exist as a basis for practice, nurses in the more senior employment categories perceived their work as involving a greater degree of forward planning and decision making than those in the more junior employment categories.

13.68% of the total population of two hospitals could not define clearly their personal definition of the word 'time'. 23.44% of respondents viewed time as a unit of measure, while 12.06% saw it in terms of its availability and a further 12.06% related it to the concepts of life and existence.

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CHAPTER 1

In this chapter the purpose of the study is outlined. The subjects of time and nursing are introduced and the relevant elements of these are identified and briefly discussed.

BACKGROUND TO THIS STUDY

The need for such a study derives from the author's view that a subject as important as time perspective, involving as it does a patient's intellectual social and physical being, must have implications for nursing practice. This has been confirmed by the interest shown by nurses who are not directly involved in this study. These nurses come from all levels and all areas of nursing. Each seems to respond to the author's comment that her thesis has as a central theme the subject of time, with their own interpretation of this subject. Some see it immediately as measured time controlled by clocks and calendars, others as life itself, yet others as an abstract concept difficult to grasp and almost impossible to define. It is the willingness to discuss the subject, the variety of interpretations and the almost universal belief among these nurses that the topic is of importance that has led to this research.

PURPOSE OF THIS STUDY

This study has been undertaken for the primary purpose of ascertaining which time perspectives best represent nurses' view of time. A secondary purpose has been to generate data which would indicate the way nurses view time in its totality and to suggest possible implications of this for nursing practice.

THE PROBLEM AND THE CONTEXT

You would measure time, the measureless
 the immeasurable.
 You would adjust your conduct and even
 direct the course of your spirit
 according to the hours and seasons.
 Of time you would make a stream upon
 whose bank you would sit and watch it
 flowing.
 Yet the timeless in you is aware of life's
 timelessness, and knows that yesterday is
 but today's memory and tomorrow is today's
 dream.

Gibran (1972 p.56)

TIME

"Time" is elusive. It is in one sense created by man, in another it is of man. It is of life and it is life. For some people it is conceived of as a circle, for others it is seen as an infinite line, its length only limited by man's inability to comprehend infinity. In this study the author has sought to identify and measure indicators that would suggest that these two differing views of time are present in a population of nurses working in New Zealand hospitals. The possible effects of such divergent viewpoints on nursing practice are presented and discussed. In writing this study the author is aware that her own concept of time intrudes. It is not possible to be objective, for the time she is discussing is as much a part of her as it is of her subjects and of her readers. Time cannot consciously be dispatched or compensated for, as can prejudice and pain for example. Nor can time easily be defined. Rama Rao (1977 p.17) states that:

There is a variety of times. There is the time of the hour glass, there is time immemorial, the time being, the time of the poet, the time of the philosopher, the time of the pregnant woman, the time of the patient waiting for the doctor to call, the time of the man in the dentist's chair, the time of newly-weds on honeymoon, the time of the student preparing for an examination and so on. It is difficult to define time as we would weight, colour and brightness. It is an experience. Time is a continuing, compelling, universal experience of our lives. It is one of the primary threads which combine in the weave of our experiences. All our perceptual, intellectual, social and emotional experiences are intertwined with time.

TIME AND NURSING

The infinite mystery that is time is linked in this study to the concept of nursing. They are two concepts with much in common. As time is an elusive concept, so is nursing. Nursing is created by man and is of man. It is of life and cares for life. It is one of the primary threads which combine in the weave of our experiences. All our perceptual, intellectual, social and emotional experiences are intertwined with nursing. Nursing to me is a part of me, as I of all men. Like time, it cannot be dispatched or compensated for. It is always with us. Everything that is done by man to defend, nurture and preserve his body and the life contained in it is nursing.

Denbigh (1975 p.15) writing on time could have been referring to nursing when he wrote:

It is a concept that is built up from several interwoven strands and is by no means unitary. Some parts of the overall concept have their origin in what is observable in the external world, while others depend upon introspective experience.

Stevens (1979 p.7) writing on nursing could have been referring to time:

The locus of nursing is a mental construct rather than an extant arena of real events.

Fraser (1975 p.9) writing on time states:

To the distant observer the nature of time appears to be intuitively obvious, as though it were an object totally revealed to searching eyes. As he approaches this object he finds himself separated from it by a transparent wall which did not interfere with the earlier view taken from a distance.

This applies equally well to nursing. Both concepts have their origin in the consciousness of man. They are both pre-scientific in origin. They are inextricably linked through the medium of the family. Whether man's consciousness of time preceded or succeeded his consciousness of nursing is debatable. That such a consciousness did develop is evidenced by the literature devoted to both subjects today. At first glance both appear to be concrete and discrete subjects. A man asked the question 'What is time?' may refer to a clock or other measuring instrument. Another asked 'What is nursing?' may refer to the work done by a person designated as a nurse. Man tends to define both these concepts in terms of physical objects associated with these concepts.

Man, for the purpose of communication, tends to interpret the object as the concept. The reason for such confusion is captured in Watson's (1981)¹ definition of time as 'an illusory reality'; a definition that I believe could equally well apply to nursing.

Nightingale (1859 Preface) saw 'every woman as a nurse', thus defining nursing as a function of femininity in much the same way as Calder described time as 'the function of the occurrence of events' Watson (1973 p.291) Both are workable definitions of convenience but they do not capture the totality of the mind concepts of nursing or time.

Nightingale's (1859) comment is still valid today:

McCaulay somewhere says, that it is extraordinary that, whereas the laws of the motions of the heavenly bodies, far removed as they are from us, are perfectly well understood, the laws of the human mind, which are under our observation all day, every day, are no better understood than they were two thousand years ago.

Given the impossibility of defining these concepts in anything other than operational terms of convenience, the usefulness of research linking these two concepts² may be debated. The author has chosen to conduct this investigation in the belief that any contribution that can add to man's knowledge of himself, however small, is worthwhile. Like Stevens, the author intuitively feels that the concepts of nursing and time are related. It is this intuition that has led to this present study.

THE ELEMENTS OF TIME AND NURSING

The author has identified seven elements that constitute the general framework of this study. Each element is chosen intuitively. Each is justified in its inclusion. Each is related to the others. All are linked to the concepts of time and nursing. Each may be thought of as a spoke in a wheel. The hub is time itself and the rim represents man's need to impose a finite view on an infinite subject, in an attempt to understand at least a little of it.

1. This definition was given in a B.B.C. Radio programme entitled "The Arrow of Time". This was broadcast twice on the National Programme of Radio New Zealand in 1981.

2. That is the concepts of time and nursing.

Each element is identified and briefly discussed. In order that such discussion is possible each is identified and discussed separately, but this is an artificial division created by the author for the purpose of discussion only. In reality each may be viewed both as context and subject. For example, events, communication and perception all occur within the framework of time and/or nursing. An individual's view of time and nursing is influenced by his perception of life, the events that occur in his and other lives and his ability to communicate those perceptions to others.

The Elements

The elements are identified below. Carefully selected quotations are used throughout this section. Such is the complexity of the elements selected that this author has chosen to present the original comments of various authors rather than seek to interpret and reword. The authors' original works reflect their understanding of the topic. To reinterpret them is only to add another interpretation to the original.

Cyclic time

"In my beginning is my end"

Eliot (1969 p.177)

Linear time

"There is no end, only addition"

Eliot (1969 p.185)

Events

"Time is a function of the occurrence of events"

Calder quoted in Watson
(1973 p.291)

Perception

"With blissful simplicity we say that we perceive time"

Fraser (1975 p.72)

Communication

"A uniform direction of time is therefore an essential condition of intersubjective experience"

Lucas (1973 p.45)

Life

"The life of each of us is permeated in every moment, in every experience and in every expression by the mystery of time"

Tillich quoted in Elton &
Messel (1978 p.98)

Nursing

"The key to nursing rests in the concept of time"

Stevens (1979 p.262)

In the following pages, each element is discussed and its relationships examined.

Cyclic Time

Cosmic forces appear in cyclical patterns, to which life learnt to respond. The strongest responses are naturally linked to the shortest cycles, those which produce the greatest number of changes in a given period. The most fundamental and familiar of all changes to which life is subject are those produced by the movement of earth around its axis.

Watson (1973 p.11)

Linear Time

Everything else in the universe is unidirectional, it becomes increasingly difficult to accept and impossible to prove that time should be the sole exception. Biologists have hardly begun to think about it. The notion of time as an arrow, as a long straight line; is part of all evolutionary thinking. Palaeontologists draw charts to show the linear descent of the modern horse from a little marsh living mini-horse with more than one digit on the end of every leg. Geneticists trace more complex, but still linear patterns of inheritance from generation to generation, all neatly numbered in sequence.

Watson (1973 p.292)

Cyclic Time and Linear Time - represent not the event but a view of the event. The two views are quite different. The first, represents time as unitary and repetitive, the second as continuous and non-repetitive. A day for example, may be seen as a single unit of time that is repeated over and over again. We say there are 365 days in a year, i.e. 365 days each identically repeated 365 times. On the other hand we may say that a day is a single unit of time that is derived from the past, contains elements of the past but is not totally a replica of the past, but also contains new elements. A cyclic view of time contains the notion of repetition, a linear view the notion of novelty. This is the essential difference between the two. One sees in the present a repetition of the past, the other sees the present as being built on the past. One sees the future as being a repetition of the present, but the other sees the future as being built on the present.

Events are the elements that identify the passing of time and with it the passing of life itself. They may be viewed by society as a whole, or by an individual alone but they occur only because man perceives them as occurring.

An event is delineated by change. For the purpose of this thesis the author has chosen to define an event as any dynamic process that can be observed and measured. It is delineated by a perceived beginning and a perceived end. An event has the property of determining past (that which has gone before) and future (that which is to come).

Philosophers have used other definitions.

Whitehead (1978 p.80) defines an event as:

a nexus of actual occasions inter-related in some determinate fashion in some extensive quantum: it is either a nexus in its formal completeness or an objectified nexus. One actual occasion is a limiting type of event.

Fraser (1975 p.69) defines an event as:

anything that remains self consistent and identical with itself through a period of time.

Whitrow (1961 p.267) points out that:

We must reckon with the possibility that events can occur in the universe, knowledge of which can never be brought even in principle, to a given observer, however long he lives and so can never enter his temporal experience.

Such definitions embrace that which is observable and consequently measurable and that which is non-observable and consequently non-measurable.

Calder's statement that : 'time is a function of the occurrence events' applies to both states, the observable and non-observable. This author wishes to relate an event not to time in general but to cyclic and linear time in particular. The length of the event is not important, only that it is a dynamic process that can be determined to have a beginning and an end. An event for example may be a minute, an hour, a day, a season, a year, a decade or a millenium. It may be no more than a single spoken word, or it may be a complete sermon. It may be walking the corridor or writing a report. Cyclic time involves the repetition of events, linear time the novelty of events. The concepts are interrelated in terms of the framework of elements used for this thesis. It is the individual nurse's perception of time as cyclic or linear that is the underlying theme of this study, but this perception is in turn influenced by her perception of events and of life itself.

Communication is based on man's ability to identify and objectify events so that knowledge of these events may become the common property of a group of individuals. As such it is subject to analysis and discussion. Such analysis and discussion is only possible within the framework of a common time, and shared perceptions.

Communication

We have no naturally given intersubjective experience of the amount of time passing
We need to set up an objective measured time because our individual senses of the passage of time do not agree.

Lucas (1975 p.15)

The lack of a naturally occurring intersubjective measure of the passage of time has been remedied by the invention of clocks and calendars. This lack of intersubjective experience of time is acknowledged by Park (1980 p.1) in the following quotation:

But I cannot tell you what time is because you already know. St. Augustine began a brilliant analysis with the complaint 'What is time?. If no one asks me I know what it is. If I wish to explain to him who asks me, I do not know'. But really he did know, and the trouble is precisely that his interlocutor knows also and the two knowledges are not the same. For one person sees time as a scale along which events are measured, for another it is the events themselves in their ceaseless flow.

If these two views are seen as opposing ends of a scale, then it follows that communication between individuals depends to a great extent on the exact nature of the viewpoint. Communication among those at the polar ends of the scale would be difficult. It is possible that Park's polarization of people into two groups is correct only in part. It is, I would suggest, more likely that the majority of individuals would vary their place on the scale according to the nature of the events (and their perception of these events), affecting them. This of course would add another element to the subject of communication for the individual view could not be seen as static but in a constant state of movement. It would seem unlikely that an individual's basic view of time as cyclic or linear could be altered completely, rather I suggest one view will predominate. The confirmation of such a viewpoint would require a longitudinal study and as such is outside the scope of this research.

Perception

The problem of human perception has been defined by almost all, if not all, theoretical systems in terms of how objects 'out there' are experienced by a person who is not part of the 'there'.

Ittleson et al.(1974 p.102)

Self reports and observation studies are influenced by this problem.

We literally change the environment by perceiving it for no other reason than that we attribute certain aspects of our own experience to the world around us. Of course this does not mean that we are free to perceive anything we want, or to attribute any characteristics to the environment we experience neither an environment independent of ourselves as participants nor ourselves independent of the situation in which we are participating, but rather we experience ourselves in and out of the environment. It is the total event itself that is perceived.

Ittleson et al.(1974 p.104)

Fraser (1975 p.91) quotes R.L. Gregory as defining perception as a 'gamble of hypothesis'. Fraser (1975 p.91) defines perception as being 'based on expectation derived from memory and operating in the complex experience of the mental present.'

Perception is bounded by concepts of memory and intention. These co-exist and are impossible to separate. There is currently some electrophysical research involving the delineation of perception and response and this may pave the way for the separation of all three concepts in future, e.g. Hausler & Levine (1980). Until recently the perception of time has been confined in the main to the areas of:

- a. orientation
- b. estimation

In the former it is not time itself that is being researched, but the concepts of past, present and future. In the latter it is the concept of time as duration that is being investigated.

This thesis is concerned with the perception of time as cyclic or linear and consequently with the perception of events as either repetitive or novel.

Each individual is aware of life as a possession but like time and nursing it is a complex and multifaceted subject. This author has chosen to interpret life as a common, rather than a individual possession and relate it in turn to the concept of time with which it is so closely linked.

Life

A new civilization is emerging in our lives, and blind men everywhere are trying to suppress it. This new civilization brings with it new family styles; changed ways of working, loving and living; a new economy; new political conflicts, and beyond all this an altered consciousness as well. Pieces of this new civilization exist today. Millions are already altering their times to the rhythms of tomorrow. Others, terrified of the future, are engaged in a desperate, futile flight into the past and are trying to restore the dying world that gave them birth.

The dawn of this new civilization is the single most explosive fact of our lifetimes.

It is the central event - the key to understanding the year ahead. It is an event as profound as the first wave of change unleashed ten thousand years ago by the invention of agriculture, or the earthshaking second wave of change touched off by the industrial revolution. We are children of the next transformation - the third wave.

Toffler (1980 p.23)

Toffler (1980) associated a concept of cyclic time with the first wave of change, linear time with the second wave of change.

Toffler (1980 p.117) argued that:

Linear time was a precondition for in dust-real views of evolution and progress. Linear time made evolution and progress possible. For if time were circular instead of linelike, if events doubled back of themselves instead of moving in a single direction, it would mean that history repeated itself and that evolution and progress were no more than illusions.

Toffler (1980 p.115) also raises the issue of societies other than Western society:

Many pre-industrial societies and some first wave societies, even today, see time as a circle not a straight line. From the Maya's to the Buddhists and the Hindus, time was circular and repetitive, thereby repeating itself endlessly, lives perhaps reliving themselves through reincarnation.

Fraser too raises the issue of time in other societies and in referring to Needham's work 'Time and knowledge in China and the West' writes:

Needham acknowledges the Chinese preoccupation with cycles but adduces evidence from the many facets of Chinese Weltanschauungs and daily practices attesting an interest in linear time.

Fraser (1975 p.40)

The problem of interpretation is evidenced by Toffler's reference to the same work. He writes:

While in China the idea of linear time dominated, according to Needham cyclical time was certainly prominent among the early Taoist speculative philosophers.

Toffler (1980 p.116)

Fraser and Toffler are however in agreement that in Indian thought cyclic time has dominated. Fraser (1973 p.41) writes - "Cyclical time represented by the metaphor of the 'sorrowful weary wheel' is accepted by Buddhism and Jainism".

The image of the wheel raises a new issue which is discussed by Whitrow (1961). That is, the difference between a 'cyclic universe' and 'cyclic time'. Whitrow (1961 p.40) argues that the concept of a cyclic universe:

leads to the concept of periodic universal time, whereas the concept of cyclic time implies that time is closed like a ring.

The idea of a cyclic universe is conveyed by the image of a wheel moving as with a car wheel when the car is driven. The idea of cyclic time is conveyed by the image of that same wheel spinning on its hub without the wheel moving in any direction, as it may be when the car is up on a jack. Whitrow (1961 p.41) discards the distinction by dismissing both concepts. He writes:

If time were truly cyclic there would be no difference between the universe going through a single cycle of events and through a sequence of identical cycles. For any difference would necessarily imply that time is not cyclic, that is, there is a basic non-cyclic time to which the different cycles could be related and distinguished one from the other.

This recalls the discussion on p.8 of Park's attempt to place cyclical and linear time at opposite ends of a scale. Perhaps the time explanation lies in Whitrow's 'non-cyclic' time. If this is equated with 'linear' time, then these two concepts supplement each other.

Others accept the concept of cyclic time without apparent difficulty. Watson (1973 p.287): 'Time is a rhythm, it comes and goes like the crackle of electricity in the brain or in the gush of blood through the heart, or the flood of the tide upon the beach'. Here Watson is clearly referring to cyclic time, as defined by Whitrow (1961 p.40) Toffler goes further than Whitrow in one respect. He does not argue that cyclic time does not exist, as does Whitrow, but that the distinction if time in its cyclic and linear concepts is outdated by the advent of 'black holes'¹ which can negate time altogether.

Toffler (1980 p.308) continues:

Increasingly, therefore, we cannot even speak of time in the singular, there appear to be alternative and plural 'times' operating under different rules in different parts of the universe or universes we inhabit. All of which knocks the props from under the Second Wave idea of universal linear time without substituting ancient notions of cyclical time.

In this statement it seems Toffler is proposing a 'Universal time' that is common to all races and obviating the necessity for distinguishing a particular population in a discussion of time and its meaning for people. Although the concept of 'Universal time' is interesting, it is still too nebulous to be used as a basis for this thesis and it is necessary to continue this thesis within the framework of a Western viewpoint and within the concepts of linear and cyclic time as they are preceived by members of the nursing community.

-
1. A 'black hole' is described by Whitrow (1980 p.314) as follows: if a spherical body is less than or equal to its Schwarzschild radius no material or photons can be emitted from it to reach any external observer and it becomes what is known as a 'black hole'.

Nursing

The nursing profession has existed, according to the writer of its history, since the time of the caveman, who returning from the hunt had his sores dressed by the cavewoman. Closer to our own era 'modern nursing' is said to have begun with Florence Nightingale and the opening of her first school in 1860. Despite our long history our social mission today is far from clear. For some within the profession, as well as outside it, the nurse is the physician's helper - more poetically described as the 'handmaiden of the physician'. For others the nurse is an autonomous professional who carries out medical orders. Between these two extremes the role of the nurse is perceived and described in many differing ways; the nurse herself, until recently has seen little necessity to justify her reason for being.

Adam (1980 Pviii).

The author (p.3), has interpreted her personal philosophy of nursing as 'everything that is done by an individual to defend, nurture and preserve his body and the life contained in it'. Such a definition is particular only to this author. It has no commonality and for this reason it is necessary that a more generally accepted definition of nursing be used if analysis and discussion of the subject is to be possible.

Stevens (1980 p.7) states:

that a universal definition of nursing 'is beyond reach'. Indeed there can be as many mental constructs of nursing as there are nurses to imagine and adopt them.

she goes on to say:

the term nursing points only to a general area of events. (p.8)

Skeet (1980 p.9) avoids the search for a definition by looking instead at the essential responsibility of the nurse. This she says is:

to give skilled nursing care to the sick, disabled and dying in accordance with the physical, emotional and spiritual needs of her patient.

This concept of essential responsibility is a valid one for hospital nurses (and this study will concern only hospital nurses), but it excludes those nurses who work with people who are not classified by society as 'sick, disabled or dying'.

In view of the lack of consensus about the nature of nursing, Virginia Henderson's view as interpreted by Adam (1980) is accepted as a basis for this thesis. In this view the following generalisations pertain:

1. every individual strives for and deserves independence;
2. every individual is a complex whole made up of fundamental needs;
3. when a need is not satisfied an individual is not complete, whole, or independent;
4. the nurse has a unique function;
5. when the nurse takes over the physician's role she delegates her primary function to inadequately prepared personnel;
6. society wants and expects this service from nursing and no other worker is able or willing to give it;
7. the goal of nursing is to maintain or restore the client's independence in the satisfaction of her fundamental needs.

Henderson's work is attractive because it is designed to encompass nursing in all contexts. It is a universal definition, and as such may be criticised as being too general. It is however, quite appropriate for this study. The fourteen fundamental needs of human beings (refer appendix 1.) form the basis of all nursing activities and as such provide a complex yet easily understood framework for nursing practice. Such a framework is appropriate in this study because the activities of the nurse are seen as secondary to her view of time. It may not be appropriate in a study where the activities are of primary importance.

This thesis has as its primary concern the time related perception of events in nursing practice. These events can be perceived as repetitive or novel in nature. A repetitive view is considered to indicate a cyclic view of time, a novel view is linked with a linear view of time. Toffler sees the cyclic and the linear viewpoints in conflict on a national and international scale. This author is concerned with the same problem not as it concerns societies, but as it concerns individuals. To be specific, as it concerns the nursing population of three New Zealand hospitals, (refer Chapter 4. p.46).