This study investigates the sequencing of symptoms of alcohol dependence and alcohol related disabilities for a sample of problem drinkers. Our findings are that the dependence symptoms studied can be grouped as early, middle-stage or late experiences in the dependence process. Disabilities related to alcohol do not appear to occur at any particular stage in this process.

1. Introduction

Recurrent themes in alcoholism research include (a) does it have a biological basis? and (b) what are the diagnostic criteria? Jellinek (1) proposed that certain types of alcoholism included cellular pathology and could be looked upon as disease entities. Edwards and Gross (2) delineated the clinical syndrome of alcohol dependence. Both these formulations, the former at the cellular level and the latter at the clinical level, constitute elements of the disease concept of alcoholism. Another important element of any disease concept is its evolution or natural history. Orford and Hawker (3) demonstrated a natural ordering in symptoms of alcohol dependence but not in items related to social damage. Chick and Duffy (4) demonstrated that the sequence of symptoms in alcohol dependence was not random.

The purposes of this study were firstly to replicate Chick and Duffy's (4) work in a different environment and secondly to investigate the combined sequencing of both symptoms of alcohol dependence and alcohol related disabilities.

2. Population Studied

The sample consisted of forty six consecutive admissions to a psychiatric hospital in Dublin who were diagnosed as having an alcohol...
problem. Nine of the sample (ie less than 20%) were females. Their ages ranged from 22 to 65 years with a mean age of 42.6 years. Thirty two (70%) claimed that they would describe themselves as alcoholics; eleven (24%), in their view, were not alcoholics but did recognise that they had a drinking problem; the remaining three (6%) did not see their drinking behaviour as constituting a problem.

To study relevance of ordering of symptoms in another population with alcohol related problems 109 outpatients from a Gastro-Intestinal- Tract (GIT) clinic were interviewed.

3. Methodology
Chick and Duffy's Alcohol Dependence Schedule (4) along with our own questionnaire on alcohol related disabilities were administered during a structured interview. The questions on these forms referred to twenty three dependence symptoms and twelve disabilities related to alcohol. Each time an item was acknowledged by the patient, the interviewer put aside a card naming that item. At the conclusion of the interview the patient was asked to place these cards, each naming an item he had acknowledged, in order of first occurrence of each item. The order of the cards was then recorded by the interviewer. A Severity of Alcohol Dependence (SADQ) score was obtained for each patient using Stockwell et al.'s questionnaire (5).

In analyzing the data a test of randomness based on analysis of variance by ranks was used (6). A modal ordering was obtained for the dependence symptoms and the alcohol related disabilities. The modal sequence obtained by Chick and Duffy (4) was compared with our data using a trend test also based on unified analysis of variance by ranks (6). Patients' SADQ scores were correlated with numbers of disabilities experienced and with other variables. Cluster analysis of the items and of the patients were carried out using Ward's method and a relocate procedure (7).

4. Results
A sequence of symptoms of alcohol dependence was elicited from each of the forty six patients in this study. The frequency with which each of the twenty three symptoms was experienced is given in Table 1 along with the frequencies obtained in an earlier study (4). The test of randomness yielded an $H$ statistic $H = 89.98$. This result is extremely