

Absenteeism and the impact of a 38-hour week, rostered day off option

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Abstract

We undertook a comparative analysis of nurses working in two consecutive years: one in a 40-hour standard working week and the other in a 38-hour week with a rostered day off per month, in order to determine whether there was any effect on absenteeism. We found that total absenteeism between the two years fell significantly from 4.58% to 4.36% ($\chi^2=5.09$, $P=0.024$). Sick leave decreased but not to a significant degree.

We conclude that the change to the 38-hour week and 19-day month (rostered day off) arrangements led to a significant reduction in overall absenteeism but not in sick leave. However, the cost in implementing a 19-day month is far in excess of any savings made through absenteeism reductions.

Introduction

In November 1994, the Australian Industrial Relations Commission handed down its decision on the Nurses (Queensland Public Hospital) Award 1991 and the Nurses (Queensland Public Health Sector) Award 1992 (the awards) in relation to the implementation of a 38-hour week for nurses working in Queensland. At the time, Queensland was the last Australian state or territory in which nurses worked a 40 hour week.

The two disputing parties were the Australian Nursing Federation (ANF) and the Department of Health Queensland. There was no issue between the parties with regard to the new standard of hours of work, but there was a very sharp division with respect to the manner in which the shorter hours should be implemented.

The decision handed down in favour of the ANF was to give nurses one accrued eight hour day off in every four week period, thereby achieving an average 38 hours per week by working a total of 152 ordinary hours in each four week period (termed the rostered day off option). The rostered day off (RDO) is also called an accrued day off (ADO) or paid day off (PDO) which are synonymous with the 19-day month arrangement in this paper.

This involves having one RDO in every four week period, with most nurses working a standard five day week. Consequently the nurse works three standard five day weeks followed by a four day week with one RDO (Australian Industrial Relations Commission, 1994). All other options put forward by the Department of Health were rejected, including a shorter working day and other cost-neutral or cost-minimised arrangements.

Many arguments were put forward by the ANF to justify its position, not the least being equity with other Australian States. However, in a tight economic climate it was necessary to argue in terms that would demonstrate at least some savings or efficiencies against an expected 5% increase in total nursing positions to cover the RDO option. Other arguments used by key witnesses for the ANF included the difficult shift work and stress component of nursing resulting in high turnover and absenteeism of nursing staff. It was argued that the 38-hour week as a 19-day month (RDO option) could help to improve attendance (that is reduce

absenteeism) and therefore minimise reliance on casual nurses or lowered patient-to-nurse ratios when replacement nurses were not available. However, no empirical evidence or research was presented to support this claim (Australian Industrial Relations Commission, 1994).

It was our contention as researchers that an award provision for sick leave is used by base grade nursing staff as a right rather than a privilege, and would not be significantly influenced by initiatives such as a shorter working week. The aim of this study was to investigate the effect of the 19-day month on nursing absenteeism in a convenience sample of clinical units in a major teaching hospital in Queensland.

The award provision for sick leave was 10 days per annum per full-time nurse with a pro rata amount for part-time staff. This entitlement did not change with the handing down of the decision. The 19-day month, 38-hour week arrangements began on 31 December 1994.

The purpose of this study was to determine empirically if the 38-hour week, in the RDO option, had any effect on absenteeism. We were fortunate to be in an institution that was going through this change and could therefore construct a comparative study of two whole years of data, one in a 40-hour standard working week and the other in a 38-hour week.

Literature review

The first industrial award to introduce the 38-hour standard working week in Australia was that of the National Building Trades Construction in May of 1982 (Dawkins & Baker, 1988). Since that time most unions around Australia have used this as the benchmark. The first Nursing award to achieve such a standard was the Public Hospitals (State) Award (NSW) in July 1986 (Moait, 1986).

Most theoretical studies by groups such as the Bureau of Industry Economics (BIE, 1984) reported at the time that shorter standard hours would improve productivity and reduce absenteeism. For example Carter and Maddock (1985) from the Australian National University wrote: "... that the greater flexibility for conducting personal business provided to the worker through a rostered day off will contribute to a permanent decrease in absenteeism."

By 1988 a study of construction industry sites that were working the 38-hour week, 19-day month reported anecdotal statements by employers that the rostered day off had "... meant to most companies that approximately one day's productivity was lost, with virtually no offsetting productivity improvements in the form of reduced absenteeism or increased productivity through improved morale or effort. It was observed by several companies that additional overtime over the long haul resulted in an increase in absenteeism" (Dawkins & Baker, 1988).

Mangan and Steinke (1987) argue that the central plank in the argument for reduced standard hours was to create more employment. However, this was not usually possible without a reduction in real wages, therefore forcing smaller enterprises to reduce production or production capacity. Increased employment usually only occurs in much larger (generally public) organisations like hospitals.

The total annual cost of absenteeism to Australian employers is estimated at just over \$7 billion (Wooden, 1992). It is therefore not unreasonable for employers to expect reductions in this cost when negotiating award and enterprise bargaining agreements. Equally unions can and do use such arguments to gain improved worker conditions (Australian Industrial Relations Commission, 1994). However, in spite of the arguments presented by both sides of the industrial fence, little evidence exists in the literature to support or refute the argument that a shorter working week in the form of an RDO actually improves attendance or reduces absenteeism.

Methodology

We chose a broad cross-section of 11 clinical units from the study hospital. Nursing rosters for each clinical unit contained 4 weeks of scheduling information, and therefore 13 rosters were completed every 52 weeks (roughly one year). The 13 rosters before and the 13 rosters after the introduction of the 38-hour week, 19-day month were examined for each clinical unit. Data collection included manually recording the number of

scheduled/rostered shifts, sick leave (S/L), leave without pay (LWOP), bereavement leave (B/L) and workers' compensation (W/C) in hours, which were later converted to whole days. This was done for each of the 11 individual units and then in total for all the units (the group).

Analysis of individual clinical unit variance over the two-year study included comparison of absenteeism between both years measuring for significance and making qualitative assessments of why significant results may have occurred in such units for reasons other than a 38-hour week. The group data were analysed to compare each roster period in the year and in terms of global absenteeism rates between the two study years. The roster containing 31 December 1994 (when the transition from 40-hour week to 38-hour week occurred) was excluded from the analysis as an aberration.

Results

Data from eleven different clinical units were analysed over two years representing 165,739 rostered shifts or approximately 347 full time equivalent (FTE) nurses in 1994 and 402 FTE nurses in 1995. The FTE figures include annual leave allotments.

There was a 10% increase in rostered shifts in 1995 (Table 1). About half were related to the introduction of the RDOs, and the remainder were due to increased recruitment beyond the level of 1994 (and independent of the RDOs). Our analysis reveals that this phenomenon was probably due to more successful filling of vacant positions on rosters with permanent employees in 1995 compared to 1994. Overall hospital activity showed no appreciable change between the two years.

Total absenteeism (including S/L, LWOP, B/L and W/C) decreased from 4.58% in 1994 to 4.36% in 1995 ($\chi^2 = 5.09$, $P = 0.024$). Sick leave decreased though not significantly from 4.05% to 3.91% ($\chi^2 = 2.31$, $P = 0.13$). Absenteeism for the total group showed significant variability between the two years (Tables 1 and 2). There were seasonal trends for sick leave and total absenteeism with peaks occurring in winter months (rosters 6-8) and troughs in summer months (rosters 13, 1 and 2) which we have previously described (Williams & Slater, 1996). Unexplained peaks occurred in October and November of 1994 (Figure 1 - roster 12) and December-January 1995 (Figure 2 - roster 13).

Two units showed significant absenteeism improvement with the introduction of a 38-hour week, 19-day month. These were ICU and Ward M2 (Table 2). The Oncology unit showed no significant change in total absenteeism with the introduction of the 38-hour week. However, sick leave rose significantly from 3.9 to 5.17 percent ($\chi^2 = 11.42$, $P < 0.001$).

Discussion

Previous studies of shorter working hours have shown variances occurring with respect to workers' injuries. The Printing Trades Journal (1985) reported a 75 percent increase in absenteeism through work related stress and repetitive strain injuries following the introduction of a 38-hour week (9.30 hour shift, four day week method). Our study has shown a non-significant decline in workers' compensation related absences ($\chi^2 = 2.04$, $P = 0.153$) (Table I). The trend away from the use of LWOP as a method of planning a day off decreased by almost 40% between 1994 and 1995 (Table I). This may be partially due to the increased flexibility and time off allowed in a 19-day month roster.

Individual differences in absenteeism between clinical units is far more difficult to explain given the wide variety of factors that can cause absenteeism among nurses (Redfern, 1978). However, the Oncology results depicting a significant rise in sick leave deserves particular attention. Attrition of many senior staff in the early months of 1995 led to an influx of junior, inexperienced nurses with a concomitant increase in number to compensate for a deficit in skill. It can be said anecdotally and in hindsight stated that the stresses experienced by staff in this area throughout 1995 could have created much of the sick leave that occurred.

As suggested, the reasons for absenteeism are varied and it seems difficult to argue that any one strategy can improve absenteeism on its own. Usually a combination of strategies, of which a shorter working week can be

one, may be more productive (Erwin & Iverson, 1994; Dawkins & Tulsi, 1990). Our results suggest that a shorter working week may indeed help to reduce absenteeism, but not without a cost. It needs to be acknowledged that the large sample size has been able to show statistically significant differences for otherwise small percentage decreases in absenteeism that may not have been possible with a smaller sample size.

The cost savings consequent on reduction of absenteeism are trivial in comparison to the increased cost per working day that result from the introduction of a 19-day month, and any argument used to suggest a 19-day month can be financially justified or neutral seems most unlikely from the results of this study. The 19-day month, RDO option required a 5% increase in labour compared to a 0.22% decrease in absenteeism.

Conclusion

It has been argued that a change to the rostered day off in a 38-hour week will reduce total absenteeism (Australian Industrial Relations Commission 1994, Erwin & Iverson 1994). We have been able to demonstrate that this is the case for nursing absenteeism, but not for sick leave. Further research is required in other nursing and professional settings to see whether this result can be generalised to the wider population.

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Table 1: results of combined units data per roster 1994 - 1995

ROSTER	DATE START	DATE FINISH	TOTAL ROSTERED SHIFTS	S/L	LWOP	B/L	W/C	TOTAL ABSENT DAYS	RDO's
1994									
1	13.12.93	9.1.94	6011	194	4	7	18	223	
2	10.1.94	6.2.94	6243	210	5	-	23	238	
3	7.2.94	6.3.94	6184	230	1	7	28	266	
4	7.3.94	3.4.94	6117	206	4	4	16	230	
5	4.4.94	1.5.94	6091	232	6	-	18	256	
6	2.5.94	29.5.94	6136	284	9	3	35	331	
7	30.5.94	26.6.94	6073	259	9	5	101	374	
8	27.6.94	24.7.94	6086	277	3	1	29	310	
9	25.7.94	21.8.94	6030	286	5	3	21	315	
10	22.8.94	18.9.94	5920	254	6	5	10	275	
11	19.9.94	16.10.94	5925	274	8	2	2	286	
12	17.10.94	13.11.94	6053	312	8	5	4	329	
13	14.11.94	11.12.94	6030	180	3	1	-	184	
TOTAL			78899	3198	71	43	305	3617	
1995									
1	23.1.95	19.2.95	6357	177	1	-	51	229	289
2	20.2.95	19.3.95	6747	197	1	3	33	234	300
3	20.3.95	16.4.95	6753	250	-	2	28	280	309
4	17.4.95	14.5.95	6823	226	2	6	30	264	308
5	15.5.95	11.6.95	7032	287	3	2	41	333	310
6	12.6.95	9.7.95	6887	297	4	2	5	308	310
7	10.7.95	6.8.95	6768	330	-	2	2	334	300
8	7.8.95	3.9.95	6763	331	2	3	21	357	303
9	4.9.95	1.10.95	6589	256	3	7	14	280	303
10	2.10.95	29.10.95	6379	246	1	3	14	264	288
11	30.10.95	26.11.95	6642	251	-	3	27	281	298
12	27.11.95	24.12.95	6676	253	5	7	19	284	299
13	25.12.95	21.1.96	6424	292	22	5	15	334	287
TOTAL			86840	3393	44	45	300	3782	3904

Table 2: absenteeism data for the 11 individual units in the study hospital

Ward	1994			1995			
	Rostered shifts (days)	Sick leave (days)	Other absences (days)	Rostered shifts (days)	Sick leave (days)	Other absences (days)	Significance of total absent
Intensive Care Unit	15 661	682	109	18 329	691	99	P < 0.005
Emergency Department	11 214	346	19	11 944	356	31	N.S.
Special Surgical (G3)	5 450	164	19	5 904	215	9	N.S.
Special Medical (M2)	5 476	256	43	5 899	216	34	P < 0.005
Oncology Unit	5 666	221	91	6 540	339 *	41	N.S.
Neurosurgery Unit (M7)	8 760	363	17	9 117	404	17	N.S.
Geriatric Rehab. Ward (GA)	5 205	287	75	5 476	344	80	N.S.
Psychiatry Ward (P3)	5 049	193	8	5 374	188	49	N.S.
Nephrology Ward (CC6)	5 590	212	13	6 655	252	5	N.S.
Urology Ward (M5)	5 161	227	13	5 585	222	6	N.S.
General Medical (G1)	5 667	247	12	6 017	266	18	N.S.
TOTAL	78 899	3 198	419	86 840	3 393	389	P < 0.05

* Significant increase in sick leave ($\chi^2 = 11.42$, $P < 0.001$)

