Understanding the Presence of Children in Late Medieval Hospitals, A.D. 1050 - 1600

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Introduction

Hospitals, as sites of care for the sick and infirm, were established in England during the 11th Century by monastic and other religious establishments (Keen, 1990). Multiple factors contributed to the creation of hospitals including the belief that lepers should be segregated and a moral concern for the care of the poor (Orme and Webster, 1995). It has been estimated that over 1000 hospitals existed in England by the end of the medieval period (Roffey, 2012). Records state that the size of some hospital populations varied, from four at St Leonard, Newark (Nottinghamshire), to 24 at St Saviour, Bury St Edmunds (Suffolk) (Gilchrist and Sloane, 2005), although little is known about the lives of the inhabitants.

This research will adopt a multi-disciplinary approach utilising the archaeological, osteological and literary evidence to study the health and living environments of children from medieval hospital cemetery contexts. The growing body of excavations will contribute to our knowledge and insight into the lives of those who lived and died in medieval hospitals.

Figure 1. Visiting the Sick (after de Vos, c.1580).

Aims

1. To determine if the high proportion of juvenile and adolescent burials identified from the medieval hospital cemetery of St John the Baptist, Lichfield, is an anomaly or a standard feature of these site types.

2. To identify at a local level, the health of juveniles and adolescents at hospital sites to determine possible causes for their presence at hospital sites.

3. To establish if there were any regional patterns or trends in England which influenced the proportion of subadult burials in hospital cemeteries.

Method

1. Desk based research to collate existing published and unpublished medieval hospital cemetery reports in England.

2. Case studies using excavation and osteology reports to investigate the role of children within medieval hospitals at a micro level.

3. Statistical analysis using SPSS to determine if the occurrence of children and adolescent burials at medieval hospital cemeteries is statistically significant.

4. Use of ArcGIS to enable spatial and temporal analysis of cemeteries to identify the location of juveniles and adolescents on an intra-site and inter-site level.

Case Study
The Hospital of St John the Baptist, Lichfield, Staffordshire.

Due to construction work, an archaeological excavation was conducted at St John the Baptist, Lichfield by Archaeology Warwickshire in 2015. Three sides of the cemetery site were uncovered. 46 skeletons buried in the Christian tradition were at risk and were recovered and analysed. Subadults are often under-represented from archaeological contexts due to poor preservation of their bone but an unexpectedly high proportion of juveniles and adolescents were identified at St John's (Goacher et al. 2016).

The hospital was founded by Bishop Clinton c. 1135 to provide shelter for pilgrims to the shrine of St Chad.
In the 13th C. inhabitants included a prior, brethren, sisters, lay brethren, chaplains, servants and local poor. The hospital had the right to bury brethren and sisters, and the sick and homeless who died there. The hospital survived the dissolution due to its education and charitable works (ibid).

Figure 2. St John the Baptist, Lichfield. (www.oldukphotos.com)

Excavation Results

Analysis of skeletal remains from St John's, Lichfield show there was a higher proportion of adolescents and juveniles here than in the larger medieval cemetery of St Mary Spital, London (Loeffeimann and Holst, 2016; Redfern, 2012). The crude prevalence rate (CPR) of pathologies from Lichfield, demonstrates that a high proportion of sub-adults (<17yrs) suffered a variety of health conditions.

Table 1. Age profile of St John the Baptist, Lichfield (Loeffeimann and Holst, 2016) compared with St Mary Spital, London, c.1120-1539 (Redfern, 2012).

	St John the Baptist, Lichfield	St Mary Spital, London
Adults (>18yrs, total)	29 (63%)	4364 (81%)
Sub-adults (<17yrs, total)	17 (37%)	1022 (19%)
Adolescents (13-17yrs)	8 (17%)	544 (10%)
Older Juveniles (7-12yrs)	5 (11%)	348 (7%)
Younger Juveniles (1-6yrs)	4 (9%)	58 (1%)
Perinatal	0 (0%)	72 (1%)
Total No. of Individuals	46	5386

Table 2. Results of pathological analysis of subadults recovered from St John the Baptist, Lichfield (Loeffeimann and Holst, 2016).

Condition	No. Individuals (CPR)	Potential Cause
Metabolic Conditions		
Cribra Orbitalia	7 (64%)	Iron deficiency
Trauma		
Osteochondritis Dissecans	1 (6%)	Joint injury or high impact activity
Infectious Disease		
Maxillary Sinusitis	8 (50%)	Respiratory tract infection or environmental pollution
Rib Lesions	2 (12%)	Lung infection
Periosteal Reaction	2 (12%)	Infection or trauma
Dental Health		
Calculus	9 (53%)	Poor dental hygiene or diet
Caries	4 (24%)	Poor dental hygiene or diet
Dental Enamel Hypoplasia	11 (65%)	Malnutrition, stress or disease

Discussion and Further Work

The proportion of subadults from medieval cemeteries in London varies greatly from 4% (Merton Priory, London) to 34% (East Smithfield, London) (Connell et al., 2012). The remains from St John's, Lichfield exceeds this at 37%, raising questions as to why so many subadults have been found here. Redfern (2012) believes the high proportion of adolescents at St Mary Spital may represent individuals searching for work, migrating to the city and being vulnerable to the social and environmental stressors of medieval London. However, this is unlikely to be the case in the smaller town of Lichfield where the main economic activity was trade and so other explanations need to be sought.

The results from St John the Baptist, Lichfield, will be compared with skeletal remains from other medieval hospital cemetery sites in England to identify the causes of ill health in sub-adults within this context. Any differences between urban and rural sites will be examined and the role of subadults in hospital sites will be explored to investigate whether they were here as patients or wards of the institution.

Comets were thought to be harbingers of disease.
Figure 3. Lucerne Chronicle (Schilling, 1513).

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